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NEW MEXICO



ITS RESOURCES IN PUBLIC LANDS,
AGRICULTURE, HORTICULTURE,
STOCK-RAISING, COAL, COPPER,
GOLD AND OTHER MINERALS.



ITS ATTRACTIONS FOR THE
TOURIST, HOMESEEKER, INVESTOR,
SPORTSMAN, HEALTHSEEKER
AND ARCHAEOLOGIST.



Published by the Bureau of Publicity
of the

STATE LAND OFFICE

Santa Fe, New Mexico.

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FOREWORD.

Although New Mexico is one of the youngest states in the Union, it is among the oldest in point of Christian civilization, having been colonized by Spaniards in 1598. But, even as early as 1540 to 1541 Coronado had explored this part of the country, bringing with him several Catholic priests, one of whom remained with the Pueblo Indians for the purpose of Christianizing them.

Notwithstanding its early settlement, however, its history seems to be but little known to the average American student, and while the object of this publication is not for the purpose of enlightening its readers concerning the fascinating history of New Mexico, its early colonization is mentioned because that fact indicates that its agricultural and commercial value was appreciated even at so remote a period.

The aim and object of this booklet is to call attention to the resources of New Mexico, for the purpose of stimulating a greater interest in the state, as well as to answer the numerous inquiries that are constantly being received concerning the superior advantages that this state has to offer to homeseekers and investors, in order that those who may be looking for new fields of endeavor may obtain a clearer conception of the possibilities of this part of the "GREAT SOUTHWEST."

There are twenty-six counties in the State of New Mexico, and this booklet contains a short sketch of each one, giving its population according to the last Government Census of 1910; its number of acres of public lands open to entry; its resources, productions and climatic conditions. In addition thereto may be found within these pages information, brief but accurate, regarding the possibilities of New Mexico in general, its production in agricul-

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Exchange

ture, horticulture, minerals and livestock; the character of its public lands and how they may be acquired either by purchase or lease.

This booklet seeks to open the door to the wonderful possibilities and resources of New Mexico and to give its readers a glimpse of things that may be realized in this land of plenty—"THE SUNSHINE STATE."

Further information may be obtained by communicating with

ROBERT P. ERVIEN,
Commissioner of Public Lands,
Santa Fe, New Mexico.

GENERAL INFORMATION.

Since the admission of New Mexico into the Union, in January, 1912, the state has advanced steadily, and her range of opportunity extends over many wide fields. The extent of land occupation is, perhaps, the broadest in both irrigated and un-irrigated propositions, but new industries are being opened and there are others awaiting capital for development offering fine opportunities for investment.

The various mines of the state have been operated recently to an extent scarcely dreamed of a few years ago, and New Mexico has come to a realization of the fact that the state's mineral productions are among its best assets.

It has been estimated that the coal deposits of this state are greater than Pennsylvania ever has produced, or ever will produce, while her oil and gas, as yet, are an untouched treasure.

The extensive forests of New Mexico offer splendid opportunities for the lumberman, while their ranges afford feed for an immense amount of livestock.

Three great trunk lines of railroads run through the state, touching all of the leading cities and towns, while others reach the less important localities, and if present building plans are realized, many districts that now are somewhat isolated will be brought more closely to the markets.

New Mexico is a very large state, and there are some sections of it that are inaccessible excepting by means of the old fashioned stage coach or the more primitive burro, but much attention has been given in the last few years to the public highways of the state, with a view to conforming them to the present standard of good roads, and the recent securing of funds for this purpose will aid, very materially, in

bringing the producer closer to the markets by giving him an easier means of reaching them.

The idea impressed upon the minds of children a generation ago that New Mexico was a part of the "Great American Desert," has become somewhat modified through closer acquaintance with her many resources, and this State no longer is regarded as the home of the sage brush, wild Indian, cactus and Spanish bayonet only, but is more generally regarded as the "Land of Opportunity."

The Indians of New Mexico are neither wild nor savage but dwell in peace and harmony with their white neighbors, cultivating their fields, raising livestock, weaving their blankets and baskets as an additional means of revenue, and giving to the state a picturesqueness that appeals to many of the great artists of the United States and the Old World, who make their temporary abode in New Mexico for the sole purpose of painting these Indians in their native habitat. The younger Indian women, educated in vocational schools, make good nurses, stenographers and house maids, and are exceptionally kind to children.

In many respects this state must appeal to the intelligent farmer and investor as a homeland and a region of promise. There are irrigated and unirrigated lands open to occupation, and a great many acres where farming under the Campbell dry-farming method may be made a success, as amply proven in those sections where it has been tried. The stockman already has found the ranges of New Mexico a veritable treasure-house of wealth accumulated in a short time.

Its delightful climate has given to New Mexico the title of "The Sunshine State," for, though there are plentiful rains and thunder showers during the summer months, and snow through the winter, its percentage of sunshine averages seventy-six, and to the health-seeker its climate is a restorative tonic. The

marked lack of humidity in the atmosphere renders neither the cold of winter nor the heat of summer oppressive, and its high altitude insures cool nights during the warmest weather.

New Mexico is no longer the land of the pioneer, but rather that of the farmer seeking a new home or the capitalist looking for a permanent investment. Investigation is invited regarding the products, resources, industries and general conditions of the state.

POPULATION.

In 1900 the Territory of New Mexico contained a population of 195,310. Ten years later it had reached 327,301, a remarkable increase of 67.6 per cent. Now, under statehood the school census indicates a still further growth which would bring the present population up to approximately 360,000, with a well assured prospect of still greater increase in the 1920 enumeration.

However, the population as given in this pamphlet is taken from the 1910 census, in order that it may be dependable and not over-estimate numbers.

New settlers coming into New Mexico are principally from the central states and the Mississippi Valley, while many farmers from Kansas and Oklahoma are finding more attractive advantages inducing them to locate in this state.

WEALTH OF THE STATE.

The increase of wealth and production in the state has kept pace with the growth of its population. The assessed valuation of property in New Mexico in 1911 was \$64,506,560, which was on a basis of one-fourth the appraised value, making a fair estimate of the actual wealth of the state \$258,026,240. The valuation of 1915 is on an assessment of the full value of the property, and amounts to \$305,067,965—according to the report filed by the Tax Commission,

and this is in no sense local, but distributed throughout the whole state. In some of the newer sections the increase has been as high as 50 per cent a year.

FINANCES AND TAXATION.

The bonded indebtedness of New Mexico, at the present time, is \$2,000,000, and there is no floating indebtedness. The statutes of the state guard against the incurring of obligations by the counties beyond their ability to meet them readily, and the cities and towns of the state have been conservative and cautious not to make improvements that would necessitate burdensome taxes in order to meet the payments.

At the time of its admission into the Union, the State of New Mexico was granted 12,000,000 acres of Government land, the proceeds from which were to be used for specified purposes, including the maintenance of certain educational institutions throughout the state. This has enabled these institutions and the public schools of New Mexico to be conducted successfully with but little aid from general taxation, and the educational, semi-charitable and penal institutions of the state are equipped in a manner that would do credit to any of the older commonwealths, and, with improvements that may be necessary with increased growth, will be adequate for many years to come.

State taxes, therefore, are not oppressive, and under the wise provision of the Constitution cannot be made so. The territorial tax rate for government purposes in 1909 was 14 mills; in 1910 it was 11 mills; in 1911, 10 mills, while at the present time, 1916, it is but 3.95 mills. This reduction was made possible by the increase in property values, as well as careful administration of state affairs. With financial conditions in the state as they are, the new comer may rest assured that the foundation is sound, and that the danger of increasing taxation has been practically eliminated.

AREA OF NEW MEXICO.

The total area of the State of New Mexico is 122,503 square miles, or approximately 78,401,920 acres. It covers a territory greater than all the states of New England combined. A single National Forest in this state is larger than both Delaware and Rhode Island together. Considering this fact it may readily be seen that conditions here are not crowded and that there is plenty of room in which to expand.

New Mexico is the Land of Opportunity beckoning the homeseeker, the permanent investor and the capitalist. But it must not be assumed that it offers immediate returns on any investment. No one should come here with the idea that a living may be made from the very beginning, for that is not possible in any country. One should have a working capital that would meet all requirements for living and improvements until productions are sufficient to supply the needs. Otherwise the results are sure to be unsatisfactory and may be disastrous. But to the man of average means, coupled with an intelligent application of energy, there are splendid opportunities in New Mexico for increasing his wealth. There are many large tracts still remaining open to entry located in the mountainous sections but available for farming, while there are several million acres which can become available and profitable by being brought under irrigation by storage of water, diversion or by pumping. Then there is the dry farming method which has been amply proven in many parts of the state, and under it some surprisingly profitable farms have been developed.

Land in New Mexico during the past two years has been taken up at a very rapid rate, and it would be well for those that may be looking to the southwest for a location, not to delay their coming to this state too long. But come and investigate conditions first, and then bring your family if you decide to stay.

There are many land grants in New Mexico, of various kinds peculiar to the west. Among them are some that were made to individuals and to communities by the Spanish and Mexican governments, respectively, and later confirmed by the United States. There are large Indian reservations and grants to Pueblo Indians; military reservations; National Forests; grants to railroads; coal and oil lands temporarily withdrawn from entry by the Government, and lands set aside for school purposes, but beside these there yet remain open to the entryman a magnificent acreage awaiting his coming.

HOW TO ACQUIRE STATE LANDS.

Among the numerous inquiries reaching the State Land Office, there is none more insistent than that which pertains to the preliminary proceedings necessary to the acquiring of state lands by purchase, and for this reason the explanations herein given are very explicit in order that those unfamiliar with such matters may be fully informed on the subject.

In the first place it must be understood that the twelve million acres originally granted to the State of New Mexico, to which reference is hereinbefore made under the caption "Finances and Taxation," were not set aside in any particular section of the state, but have been selected from unoccupied lands of the U. S. Government, located in the various counties of the state. The State Land Office has no complete list of these lands for distribution, as it is awaiting final action by the U. S. Government on approximately three million acres which have not yet been clear listed, (which is equivalent to a patent) to the state.

Therefore, the first step necessary for anyone desiring to acquire state lands in New Mexico, is to make a personal investigation of either the entire state, some county, or parti-

cularly locality, as the case may be, and decide upon certain lands as desirable for investment. Having made this personal investigation, it is necessary, if you are not acquainted with land descriptions, to have a good surveyor, or some other competent person, give you the exact description of the land as to section, township and range.

Having completed these necessary details, the next course is to come to, or communicate with the State Land Office, in the Capitol building at Santa Fe, and secure regular blanks, furnished free of cost by this office, upon which to make application to purchase the land, and in such application a description of the land must be given in accordance with that made by the surveyor employed to run the lines; the application must be properly signed by the applicant and sworn to by him before a notary public. It must be accompanied by an appraisement of the land, made by a disinterested party; and also at the time of making application the applicant must deposit a sum sufficient to pay all cost of advertising and expense of holding sale. The amount of cost varies, depending upon the charges made by local newspapers, and the distance from the State Capital to the county seat of the county in which the lands are located, which makes a variation in traveling expenses incident to such sale.

Again, if a number of sales are made, the total expense of advertising and holding sale is divided among all the purchasers. Individual sales cost about seventy-five dollars, but where a number of sales are effected at the same time the expense is often reduced to five or ten dollars each.

After the application is received by the State Land Office, an examination of the land is made for the purpose of determining the accuracy of the appraisement, and also for the further purpose of ascertaining whether the sale of the land so selected will interfere with the sale of

the balance of the tract, providing there is any such balance. If everything is satisfactory, notice is then given by publication that this land will be sold at public auction, as required by law.

This notice must be published for ten successive weeks in one newspaper nearest to the land, and in another one at the state capital for the same length of time, and must contain a full description of the land, as given in the application to purchase, together with the day, hour and place of such public auction. Of course, it is understood that others besides the applicant may bid on this land at the time of sale, and in all cases it will be sold to the highest bidder. The purchaser of the land is required, on the day of such purchase, to pay four per cent per annum interest, one year in advance, on all deferred payments on the land, and one-tenth of the purchase price. If another than the original applicant for the land should be the purchaser, then the money deposited with the State Land Office to cover expenses of sale, will be returned to the original applicant for the land and the actual purchaser will be required to pay such expenses of sale, including publication of notice etc.

If he prefers to do so the purchaser may pay all cash for the land at the time he buys it, or at any later date, and thus secure his deed without further delay; or he may take possession of the land under a contract of sale entered into between himself and the Commissioner of Public Lands, the terms of which require an annual payment of one-thirtieth (1-30) of the balance due on the purchase price of the land, and one year's interest in advance, on all deferred payments, at the rate of four per cent per annum, payable on the first day of October of each and every year until the whole sum is paid, thus giving the purchaser thirty years in which to complete his payments, by simply paying yearly installments of equal amounts and the

interest on all unpaid sums. When he has completed these payments in full he will receive a deed from the state conveying an absolutely clear title to the land.

During the years pending final payment on the land, the purchaser pays taxes on his equity therein, and on all improvements placed on the land.

It is not necessary to live on state land in order to secure title to it, as it may be purchased either as an investment and left idle for any length of time, or it may be bought for a home and improved, or used for grazing purposes, whichever the purchaser desires.

The least amount of acreage that may be purchased is forty acres, or a fractional lot which sometimes contains a little less than forty acres, but there is no limit to the largest amount that any one may purchase. He is at liberty to buy as many acres as he can pay for.

Lands lying east of the line between ranges eighteen and nineteen east of the New Mexico Principal Meridian, cannot be sold for less than five dollars an acre, and lands lying west of that line cannot be sold for less than three dollars an acre.

Lands which are, or may become susceptible to irrigation under any United States Government Reclamation project, cannot be sold for less than twenty-five dollars an acre.

State school lands, which include sections 2, 16, 32 and 36 in each township, cannot be sold for less than ten dollars an acre unless they are contiguous to other state lands, in which case they may be sold for the same price obtained for such state lands adjoining them.

LEASING STATE LANDS.

State lands are subject to lease for grazing or agricultural purposes. Grazing lands are leased for five cents an acre, per annum, and agricultural lands for from ten to twenty cents an acre yearly, according to the location, quality and condition of

the lands. These rates, however, are subject to change, but not during the life of the lease.

Leases are made for five years, subject to sale of the land at any time during that period, possession to be given on the first day of October following the date of such sale.

In order to secure state lands for leasing, the same preliminary procedure is necessary as required in making selection of lands for purchase. The applicant must first make his selection, have it surveyed and appraised, and then make application to the State Land Office, which will have the land inspected, and, if passed as satisfactory, a lease may be made to the parties applying for the same, and they may enter into immediate possession of the land.

Practically all the large tracts of land are leased but vacant school sections can be found in every county in the State.

All leased state lands may be sold at any time, upon application, and the lessees have the same right to bid on them at public auction, as any one else. If improvements are on such leased lands at the time of sale, they are appraised when the land is offered for sale, and the buyer of the land must pay the cash value of such improvements to the owner thereof, at the time the sale is consummated.

No expenses are attached to applications to lease state lands.

HOW TO ACQUIRE GOVERNMENT LANDS IN NEW MEXICO.

Besides 8,304,546 acres of unsurveyed public lands in New Mexico, there are 19,483,811 acres of Government lands in the state already surveyed and subject to homestead. These lands lie adjacent to state lands, and those desiring to purchase state lands may also file on a homestead contiguous to the same, if they choose and have not already used the right of homesteading.

Any man who has not already ex-

exercised his right of homesteading can file on a homestead of 160 acres; or, if he prefers to file under the "Enlarged Homestead Act," he can secure 320 acres of land which must be desert in character; in addition to this 320 acre homestead, he also can make a desert filing on 160 acres, and his wife, too, has the privilege of filing on 320 acres of desert land under certain conditions specified in the Act referred to. These lands available under this Act are all designated by the General Land Office, at Washington, D. C., and full information concerning them may be obtained at the local United States Land Office, where application should be made.

While the State Land Office does not make any attempt to locate any one on public lands, it is able and willing to render assistance in making selections, and can give general information as to what character of land may be found in various localities throughout the state. Therefore, if any one is desirous of purchasing state lands it would be well to inquire at this office before incurring expenses which might be unnecessary.

LOCAL UNITED STATES LAND OFFICES.

Local United States Land Offices, and the counties in which land over which they have jurisdiction is located, are as follows:

Clayton, Union County,
has jurisdiction over lands in Colfax, Mora, Quay, San Miguel and Union counties.

Fort Sumner, Guadalupe County,
has jurisdiction over lands in Chaves, Curry, Guadalupe, Lincoln and Roosevelt counties.

Las Cruces, Doña Ana County,
has jurisdiction over lands in Doña Ana, Grant, Luna, Otero, Sierra and Socorro counties.

Roswell, Chaves County,
has jurisdiction over lands in

Chaves, Eddy, Lincoln, Otero, Socorro and Torrance counties.

Santa Fe, Santa Fe County,
has jurisdiction over lands in Bernalillo, Colfax, Guadalupe, McKinley, Mora, Rio Arriba, Sandoval, San Juan, San Miguel, Santa Fe, Socorro, Taos, Torrance and Valencia counties.

Tucumcari, Quay County,
has jurisdiction over lands in Curry, Guadalupe, Quay, San Miguel and Union counties.

SYSTEMS OF LAND DEVELOPMENT.

Well defined systems of land development are being devised in all sections of New Mexico, and new projects building, but there are many yet untouched which offer fine opportunities. Old ditches are being remodeled and extended; modern methods employed to get the most benefit out of every gallon of water used. Dry farming, so-called, which really means production without irrigation, has brought under cultivation large tracts of land and the results, as a rule, have been eminently satisfactory. The eastern and north-eastern parts of New Mexico are more largely given over to this method of farming, as flowing streams are not so numerous there as in other portions of the state.

Irrigation in this state, until recent years, has been of a primitive character and was carried on by those dwelling here centuries ago, as evidenced by remains of ancient ditches, but the magnitude and possibilities of the system are not generally realized, and even yet the real irrigation systems of New Mexico are in their infancy, though certain sections have them well developed.

Only a few years ago there were approximately but 50,000 acres available for irrigation; now there are not less than 6,000,000 acres, and it is plain to see what this indicates to those desiring to enter the new field and test its possibilities; it means the providing of homes for

thousands of people. Applications for water rights, during the past three years, have reached a total of 1,100, and while these filings have not and may not be actually developed, it shows the present tendency.

Irrigation by pumping has proven successful in certain sections of the state, including splendid results obtained in the Mimbres Valley, in Luna County, and also in Roosevelt County, while the Rio Grande and Alamogordo valleys are extremely promising. Many of the artesian wells of Chaves and Eddy counties furnish water for irrigation, although some are not available for that purpose owing to the presence of alkali. In Chaves County an electric pumping system has been established along the Berrendo River, near Roswell, irrigating lands hitherto unwatered, the electric plant at Roswell furnishing the power.

Aside from all these are numerous small water supplies which could be utilized by storage of flood waters in the mountain cañons, which would reclaim a large area, but which have not been included in the estimate of irrigable lands. These offer an attractive opportunity for the small investor and are worthy of a thorough investigation.

GOVERNMENT IRRIGATION PROJECTS.

Government irrigation projects have been established in New Mexico under the United States Reclamation Service, the largest of which is the Elephant Butte dam, in Sierra County. This is the greatest artificial reservoir in the world, and when completed it is estimated that it will have cost the government not less than \$10,000,000. By this project waters of the Rio Grande are conserved in a lake forty miles long, with a storage capacity of 2,630,000 acre feet at the spillway elevation of 4,407 feet. It will require another two years' time from January, 1916, to complete this project, but meanwhile one-half of the total number

of acres in the rich Mesilla Valley of Doña Ana County are being supplied with water through the medium of diversion dams, and when finished the Elephant Butte dam will furnish water for irrigating 180,000 acres of productive lands, 110,000 of which are in New Mexico.

Another Government enterprise now completed is the Carlsbad Irrigation Project, near Carlsbad in Eddy County, which has reclaimed 24,500 acres of fertile land, and it is the intention to further extend it. Also there are several Government irrigation systems in operation on the various Indian Reservations in New Mexico, notably, at the Zuñi and the San Juan Agencies, as well as at some of the Indian Pueblos. There are now several projects under consideration to be established through the working of the Carey Act, which was extended to New Mexico in 1909, and which is administered by a State board with the State Engineer as executive officer.

Also there is in operation in this State a district irrigation law, enacted by the Legislature of 1909, under which a community of land owners may associate themselves together for the purpose of bonding their lands to secure funds with which to construct necessary works in a local irrigation district. This method has been tried in several counties of New Mexico, San Juan and San Miguel Counties being the first to take advantage of it, and it has proved very satisfactory.

PRICES OF IRRIGATED LANDS.

It is impossible to give accurate information on the price of lands under irrigation, as much depends upon the location, improvements and method of irrigation, all of which vary to a great extent, while the different projects are too extensive to particularize regarding them. Another element to be considered in fixing prices of such lands is the

nearness to market, as well as the character of soil and the condition of the water rights. However, in a general way, raw lands range from \$25 to \$75 an acre. Cultivated lands under irrigation bring from \$40 to \$300 an acre; those with bearing orchards from \$300 to \$1,000 an acre, while lands subject to irrigation by pumping, with water undeveloped, sell for \$15 to \$50 an acre.

There is such a varied assortment of irrigated lands in the state that it would not be difficult to suit those desiring to purchase. Generally speaking, the lands sold under irrigation projects can be secured on easy terms. The water rights invariably are incontestable, as the state is very cautious in granting rights to appropriate waters; only bona fide investors prepared to carry out their construction plans being able to obtain such rights.

Lands are being taken up so rapidly and their development is so constant, that the time of what may be called cheap lands in New Mexico is rapidly passing. The highly cultivated small farm in this state can be made to pay for itself, and bring a good living to its owner.

MINERALS OF NEW MEXICO.

The principal minerals found in New Mexico, in point of production, are copper and coal, with gold, silver, lead, zinc, turquoise and gypsum following. The output of the mines of this State for 1915, according to the report of the United States Geological Survey, indicated a yield of \$1,500,000 in gold; 2,032,000 ounces of silver; 24,640,000 pounds of zinc; 3,951,000 pounds of lead and 72,000,000 pounds of copper, while the production of coal as given in the annual report of the State Mine Inspector for 1915, amounted to 3,858,554 tons, with an approximate value of \$5616,550. Of this amount of coal 38,616 tons were pure anthracite, which is found in this state only in the Cerrillos coal fields in Santa Fe County. In addition to this estimate of the coal

production must be counted 29,806 tons consumed in operating the different mines of the state, and 729,456 tons used in making 364,873 tons of coke with an approximate value of \$1,199,776.

These figures will convey some idea of the importance of the mineral resources of New Mexico, but in addition to those above mentioned there are deposits of salt, sulphur, graphite, iron ores, alum, manganese, mica, tungsten and even meerschaut, the latter having been found only in Asia Minor, in paying quantities, until discovered in this state. Since the discovery of tungsten in New Mexico, only a short time ago, the shipments of this valuable ore have been almost phenomenal, eastern markets sending "rush" orders and paying as high as \$2.50 a pound for it.

The turquoise mines of New Mexico have a national reputation, Tiffany's jewelry house in New York depending almost entirely on the stones from this state for all turquoise used in its business, and those of New Mexico are rated in beauty and quality but little less than the famous gem-stones of Persia, according to official statements based on an analysis of the two products.

Marble has been found in paying quantities, and petroleum is just now coming into prominence as one of the mineral resources of this state, and taken as a whole, New Mexico offers a splendid field for the enterprising prospector.

PRODUCTION AND MARKETS.

In point of productiveness, in proportion to the number of acres cultivated, New Mexico ranks high. According to Government statistics for 1915 the crops of this state amounted to the following figures: Corn, 2,730,000 bushels, at an average market price of 73 cents per bushel. Potatoes, 800,000 bushels, at 95 cents per bushel. Sweet potatoes, 92,000 bushels, at 97 cents per bushel. Apples, 276,000 barrels. Pears, 60,000 bushels.

Wheat 2,156,000 bushels, at 91 cents per bushel, and oats, 2,160,000 bushels, at 34 cents per bushel.

These statistics do not include kafir corn, milo maize, feterita, broom corn and several other important crops that would swell the amount of production in this state very materially, had they been reported. However, the above figures will convey a better idea than words concerning the productiveness of this state. In addition to the crops mentioned, all kinds of melons and garden truck raised in the fertile soil of New Mexico under irrigation, produce enormous results. Every kind of fruit grown in the temperate zone flourishes in this state. Of course, citrus fruits cannot be raised in this climate as they require a greater degree of heat and humidity than are found in this state, but the ordinary fruits of the orchard, such as apples, pears, peaches, plums, apricots, grapes and fruit of this class are unsurpassed, while berries of all kinds are always dependable, and fruits grown in New Mexico attain an unusual degree of perfection in flavor and color because of the great amount of sunshine under which they mature.

Alfalfa and all kinds of cereals are crops that thrive especially well in this state, and broom corn is raised very successfully wherever planted.

The problem of markets, however, is one of more than passing interest, appealing alike to the producer and to the consumer. More than half the eggs and three-fourths of the butter used in New Mexico are imported, while other food-stuffs in similar proportions are shipped into the state from outside points, therefore the chance for the farmer to market his products appears remarkably good, but the distances between habitations in this state are much greater than in more congested places, and before deciding upon a location for a home it would be well to take into consideration the availability of markets.

The increasing number of new mining camps throughout the state, as well as those already operating, offer good markets for farm produce of all kinds.

The crops of New Mexico, of whatever kind, command good prices in the outside markets. Alfalfa is shipped to eastern and southern points, bringing excellent returns, while peaches and apples, always a staple crop in this state, bring fancy prices in the markets of New York and the middle west. Melons raised in this state are bought by the railroad lines for their dining cars and eating houses, the demand taking a greater part of the supply.

It is worthy of note that a matured fruit orchard in this state recently sold for \$10,000, at the rate of \$500 an acre, and the following year the crop on the trees brought \$9,000. Raw land in districts where such results were obtained, with equally good market facilities and water rights just as reliable, can now be bought for \$30 to \$100 an acre, requiring only development to make the land fully as productive. It is a condition that, manifestly, cannot last long in this state, and one that does not exist in any other developed irrigation region in the west. Land in New Mexico, at present prices, affords an investment with only a slight element of risk and with certainty of reasonably speedy returns. But it must not be forgotten that, in New Mexico as anywhere else, a working capital is necessary to defray expenses of improvements and living until the land can be brought up to a production that will be sufficient for all needs.

Tomatoes and beans are other crops not reported by Government statistics, which are especially dependable in New Mexico. In Mora County during 1915, on land bought for \$10 an acre, from fifteen acres cultivated, 12,520 pounds of beans were harvested, which sold for \$3.40 per hundred pounds. On four acres of irrigated land in Colfax County an average of 1,160 pounds to the

acre were produced. In Torrance County it is estimated that the bean crop for 1915 brought into that county the sum of \$75,000, and the demand for New Mexico beans constantly is on the increase and they give promise of becoming one of the most profitable products of the state.

Tomatoes grown in New Mexico are among the more profitable of the state's marketable commodities. In Eddy County during 1915, one farmer sold \$167 worth of tomatoes from one acre of land, and had still more to market. In Lakewood, Eddy County, there is an extensive cannery and the tomatoes of New Mexico are especially well adapted to canning, having a fine flavor and solid meat. The demand for this product is increasing and offers an opening to farmers. At Hondale, in Luna County, another cannery is in operation with very successful results. Canneries afford good markets to dispose of farm produce and if more were established throughout the state they would encourage greater production. This offers an opening for enterprising capitalists seeking new fields for investment.

THE DAIRY INDUSTRY.

The dairy industry in New Mexico has developed principally within the past two years, or since 1913, and as a consequence creameries are being established rapidly and successfully in various sections of the state, and the farmer finds therein another market for his produce, especially butter fats.

The central and northern parts of the state are best adapted to the purposes of dairying, especially in the making of cheese, and the day is not distant when the consumption of this staple article will be wholly from home manufactured goods.

The successful dairyman has found that much of his success depends upon raising his own feed for the stock, which does not require a large acreage if judiciously planted. Food

crops in New Mexico become more prolific as the methods of production are better understood. There was a time when milo maize, kaffir corn, feterita and their kindred grains were but little known or appreciated, now they are recognized as invaluable on the farm or dairy, and the ease of their production adds to their value. Alfalfa always is a stand-by on the farm or dairy, and in considering products of the farm those of the dairy should be taken into account, for it really is an important adjunct to the large farm.

Another factor in farming or dairying that has attained prominence in this state, and which reduces the cost of winter feeding very materially, is the silo. One of its many advantages consists in utilizing much material on the farm that usually has been considered waste product, but of course a better quality of silage is obtained by growing crops especially for that purpose and cattle and sheep thrive on this feed, while other kinds of stock can be successfully fed with it.

LIVE STOCK.

There is not a county in the entire State of New Mexico that is not adapted to stock-raising, and, according to reports for the past three years of 1913, 1914 and 1915, the public domain is accommodating more than a million cattle and over four million sheep, while half a million goats graze on these ranges. Hog-raising is another industry that has grown rapidly during the last few years, proving profitable and giving promise of becoming one of the more important industries of the state.

Cattle of the New Mexico ranges are bred principally from the White-face Hereford and are among the finest and healthiest in the world. There are other breeds also, such as the Polled Angus, Polled Hereford and Durham, the Herefords being raised chiefly for beef cattle. Hereford calves, during the years of 1914 and 1915, sold for \$30 a head.

Sheep are bred up from all the finer stock of eastern states and Europe. The high grade wool sheep produce smaller lambs than the coarser breeds, but the crossing of the native sheep with the finer grades gives a large body with finer textures of wool, and this wool is especially adapted to the weaving of Navajo Indian blankets, as demonstrated on the San Juan Reservation; and the sheep is a ready seller for mutton. Lambs from New Mexico known as "Feeding lambs," brought as high as five dollars a head during 1915. These were shipped to Colorado, Nebraska and Kansas points near packing house markets. The northern and eastern stock feeder thoroughly appreciates the value of New Mexico sheep and cattle for feeding purposes, and is a ready buyer.

As an evidence of the sheep industry New Mexico ranks third in the United States in the production of wool, and according to the Annual Report of the Sheep Sanitary Board for 1915, during that year there were shipped out of this state from various points the immense number of 1,219,762 sheep.

Cattle shipments, during 1915, according to the report of the Cattle Sanitary Board, amounted to approximately 285,325 head of those raised in the state. About 25,000 head of these were shipped to markets in the state, and approximately 75,000 head were shipped into this state from Old Mexico, thence re-shipped to markets outside this state, making a grand total of 360,325 head of cattle that were shipped from points in this state in 1915.

The shipment of horses was less than in former years, amounting to but 7,949 head for 1915, but there were four thousand new brands recorded in the state during that year, making a total of 29,000 brands of record in New Mexico at the end of 1915.

These statistics will convey some idea of the importance of the live-

stock industry in this state, despite the encroachment of the farmer on the ranges. The immense packing houses of Kansas City and Chicago are constantly drawing on the herds of New Mexico for their supplies, and recently a corporation has been organized with a view of establishing a packing house in this state. It certainly will supply a crying need, as nearly all of the meat consumed in New Mexico is shipped back into the state from outside markets, after having been raised on New Mexico ranges and shipped out to the same markets. A packing house in Colfax County, with a limited capacity, supplies the local demand in that vicinity.

WATER SHEDS AND GAME PRESERVES.

The great range of the Rocky Mountains extends its chain into New Mexico in somewhat broken links, forming a water shed for the plains between, and affording unsurpassed game preserves. Its lofty peaks lift their heads above sea level to a height of more than twelve thousand feet, overlooking deep and rugged cañons through which rush and tumble swiftly running streams, fed from the snows of winter until late in the summer and supplying the lower valleys with an abundance of cold, pure water. During the summer rains these mountain streams sometimes become veritable torrents, and their great volume of water is a tremendous industrial force that some day will speed the wheels of factories throughout the state and furnish electric power for light and transportation.

There is no more beautiful scenery in all the world than may be found in these Rocky Mountain regions of New Mexico, and they form one of the most attractive features of the state for tourist and sportsman. In these mountain fastnesses wild game abounds, the deer being carefully

protected under the state game laws, while the open season on bear and other predatory animals offers sport for the hunter at any time of year. Wild turkeys and grouse also are found in these mountains, while on the plains quail and doves are plentiful and the inland lakes harbor great flocks of wild ducks, all protected under the wise provisions of our state game laws. The mountain streams are well stocked with fish from Government hatcheries, which insures an ever increasing supply and affords ample sport to the devotees of hook and line during the open season, as well as opportunities for a taste of camp life.

During the year of 1915 a total number of 500,000 young fish were planted in the streams of New Mexico.

CLIMATE AND HEALTH.

No climate can rival that of New Mexico for those suffering from throat and lung diseases. In its early stages tuberculosis can be absolutely cured in this dry, pure atmosphere, and even its later developments may be arrested, if the patient will but observe careful attention to habits and diet in order to assist in his recovery in every way possible. At this high altitude, which averages 5,500 feet above sea level, New Mexico is not the most desirable place for those afflicted with heart disease, but for almost all other diseases it has a panacea in its incomparable climate, or in its many natural mineral springs, some of which are known to have effected most wonderful cures for ailments peculiar to mankind which are regarded as beyond medical skill. The curative powers of the waters and the hot mud of these springs are not yet generally known, even within the borders of the state itself, but when they become better known throughout the world they will rival the baths of Europe. Many are not suitably developed as yet, so far as ac-

commodations and transportation are concerned, but where nature has done so much it only remains for man to do his part to make these mineral springs of New Mexico one of the state's greatest assets.

New Mexico may indeed be regarded as the nation's sanatorium. The United States Marine Hospital and the United States Army Hospital, both for tubercular patients, are located in this state, while there are innumerable sanatoriums throughout the state where patients from all parts of the world seek recuperation of impaired health, and find it in this invigorating climate.

The following summary, given by the United States Weather Bureau, covering the state of New Mexico, is the climate's best indorsement:

"The climate of New Mexico is classed as dry, mild and sunshiny, and generally invigorating, unsurpassed for healthfulness and comfort. The warm southern valleys have an average annual temperature of above 60°; the central valleys 56°, and the higher plateau country, 46° to 48°. For the state as a whole winter averages 35°; spring, 52°; summer, 71° and autumn, 54°, making 53° for the year. The greater part of the state is exceptionally free from extremes of heat or cold.

"The average annual precipitation is about 14 inches, but varies greatly according to location and altitude. The so-called 'rainy season' occurs from about the middle of June to the middle of September, but the months from May to October, inclusive, receive over 70 per cent of the annual precipitation. The lower valleys and lower plateau regions have less than 15 inches a year, while the eastern plains districts, higher plateaus and mountain districts have from 15 to 20 inches, or more. The mountains thus form vast natural reservoirs from which flow the streams that afford irrigation for the fertile mesa and valley lands.

"Much sunshine occurs and there are few cloudy days—about 52 in a

year; thus the sunshine averages above 76% of the possible amount. The spring months are sometimes windy, but, as a rule the summer, fall and winter are practically free from high winds, and destructive storms do not occur.

"Successful years have been experienced by the state since 1910. The average precipitation for 1911 was 17.92 inches; for 1912, 13.92 inches; for 1913, 15.36 inches; for 1914 19.45 inches, and for 1915, to include the month of October, 16.63 inches. These years have averaged slightly below the normal temperature, but have, as a rule had long, successful seasons."

TOURIST ATTRACTIONS.

It would be difficult to find in any other state in the Union as many and as varied attractions to the tourist as are found in New Mexico. Yet for years the American tourist has been going abroad for his sight-seeing trips, ignorant of the grandeur, the beauty and the historic interests of his own country.

Now that he is temporarily debarred from European excursions he should turn his attention to this land of antiquities, where may be seen ancient ruins of pre-historic towns, buried beneath centuries of dust and only excavated within comparatively recent years under the personal direction of some of the leading students of archaeology.

The School of American Archaeology has a branch at Santa Fe, the state capital, and the special work of this particular branch is to make a study of these ancient ruins scattered throughout central and western New Mexico, where still may be seen evidences of a once vast population of which nothing definite is known, except that they lived, loved and died.

The numerous Indian Pueblos of New Mexico are another attraction to the tourist that puzzle students of ancient history, for while some of these pueblos are so ancient that the historian can shed no light on their

origin they are still peopled by descendants of those who built them, and so far as known, these descendants speak the same language, dress in similar costumes and in many cases observe the same tribal customs as their pre-historic ancestors. These pueblos are communal dwellings of from one or two, to five and six stories in height, built of adobe bricks, and the Indians themselves form a most picturesque feature of the whole setting.

Then there are numerous historic relics that are closely interwoven with American history, for New Mexico has been the setting of some stirring scenes, and the whole state gives evidence of having been battle-scarred, with its ruined forts, its crumbling adobe round towers that once withstood the shafts of the enemy, and its monuments to heroes fallen in battle against savage Indians, while its old mission churches, many of which are still used as places of worship, are monuments to the heroes of peace that came to conquer by the cross.

STATE GOVERNMENT AND SOCIAL CONDITIONS.

All state officers are elected, as are the members of the judiciary. A department known as the Corporation Commission, having extensive authority in the regulation of corporations, was established by the state constitution. This commission is given a rigid supervision over all public service corporations with the intent that the rights of the citizens may be maintained at all times. When the framers of the state constitution assembled it was with the desire to give the new state such a constitution as would place it in line with the older commonwealths that have made our nation great. The result of their deliberations met with the approval of the citizens of the state, and has been the means of rearing a governmental structure that will endure because the foundation is sound.

There is also an officer known as the State Bank Examiner and another as the Traveling Auditor. Through these officers the banks and the books of the officials of each county are required to be examined once a year.

It is worthy of note that there is no state poor house in New Mexico, and the need of one has not yet been made manifest, although there are charitable institutions under private control which care for the indigent sick, and the state contributes to the support of such institutions as well as to the support of several orphan asylums that are conducted by charitable organizations. The state institutions, semi-charitable; insane asylum; schools for the deaf and dumb and the blind, are all well provided for and the land appropriations made for their maintenance assist materially in reducing taxation. The court records of New Mexico show a percentage of crime below the average of many older states, giving evidence of the class of citizenship and the extent to which the laws are enforced.

New Mexico offers a homeland under good government; a healthful climate, delightful at all seasons of the year, with the door of opportunity open to all that are able and willing to couple energy with good judgment, because here, as everywhere else, there must be diligent effort intelligently directed, without which no man can make a success of any undertaking in life. This is in reality a new field, presenting a chance to begin, and while it is not a frontier it offers rare opportunities to make a new start, and now is the time to investigate the resources and possibilities of New Mexico.

RAILROAD SYSTEMS.

Railroads, in crossing the state, are built along the lines of least resistance. The main line of the Atchison, Topeka & Santa Fe passes through a practically rough, mountainous re-

gion, care having been given in the building of the road, to grades and not to any possibilities of the development of the country, as it was meant to be a trunk line from east to west.

The Rock Island and El Paso & Southwestern was built partly as a trunk line, and partly for the purpose of carrying coal and coke from the Dawson coal mines, in Colfax County to the copper mines of the owners in other parts of the great southwest.

The Colorado & Southern, which passes through the northeastern corner of the state, is a notable exception in this regard, as it is the only line along which dry-farming may be seen to its best advantage.

The Denver & Rio Grande Railroad, in following the line of least resistance, passes through some of the most beautiful Rocky Mountain scenery in New Mexico, but this does not convey to the mind of the passenger much of an idea of the rich agricultural country lying beyond the line of vision from the car windows.

Railroads now operating in New Mexico are the Atchison, Topeka & Santa Fe, the principal system which, with its main lines and branches, reaches into all the more thickly settled counties. It crosses the state from east to west and from north to south, passing through twenty of the twenty-six counties, reaching most all of the principal cities and towns.

The El Paso & Southwestern system passes through southern and southeastern New Mexico, joining the Rock Island system at Tucumcari. A branch line is operated to the great coal fields at Dawson, in Colfax County. The Choctaw, Oklahoma & Gulf Railroad has recently been completed from the east as far as Tucumcari, in the northern part of Quay County.

The Denver & Rio Grande Railroad reaches into Rio Arriba, Taos and Santa Fe counties from the north, with a narrow gauge line that terminates at Santa Fe, and from Du-

rango, Colorado, this line runs into San Juan County, New Mexico, with a standard gauge road, and its present plans contemplate the ultimate standardizing of its entire system.

The Colorado & Southern Railroad crosses Union county with several branches. The main line of the Southern Pacific system operates across the southwestern part of the state from east to west. The New Mexico Central runs from Santa Fe to Torrance. The St. Louis, Rocky Mountain & Pacific Railroad is operated from Raton across Colfax and Union counties, reaching the important coal, timber and farming regions of both counties, and terminating at Ute Park, a most attractive summer resort for tourists and healthseekers.

There are also a number of short lines and branches, while several surveys have been made recently with a view of extending present lines.

The entire railroad mileage of New Mexico is 2,992.07.

STATE HIGHWAYS AND COUNTY ROADS.

One of the best evidences of the value of a directing authority in the matter of constructing public highways consists in the eminently satisfactory results obtained through the work of the State Highway Commission. The State Engineer, through whose office all of the work on the state highways is done, and under whose supervision county roads and bridges are constructed, is the official engineer of this State Highway Commission.

Since New Mexico was admitted into the Union of States, in 1912, ninety-six bridges have been built throughout the new state. Thirty-three of these are fine steel bridges over deep, turbulent streams; fifty-one are wooden trestle bridges over less dangerous crossings, and twelve are small wooden structures from twenty to two hundred feet long thrown across sandy arroyos. Most of these bridges were built under

contract, excepting the ones across the arroyos, which were constructed by the engineer's force.

The type of bridge best suited to local conditions, especially over the Pecos River and the Rio Grande consists of sixty to eighty-foot steel pony trusses, on creosoted piers over the main channel, and a pile trestle over the remainder of the stream.

Previous to 1912 the roads throughout New Mexico were scattered, irregular and followed no systematic lines. Many of these original country roads have now become entirely obliterated, while, on the other hand, where the earlier settlers followed straight routes across the mesas from place to place, forming a solid road-bed with wagon wheels alone, the State Highway Commission has deemed it wise to preserve many of such roads as a part of the plan of state highways. These roads are in a good state of preservation, needing only some attention across drainages, mostly sandy arroyos. New roads of this type also are being constructed with drags and machines at a cost of approximately \$50 to \$100 a mile. Probably about one-third of the mileage of the present plan of the system of state highways includes this type of road.

The main artery of traffic in the system of good roads in New Mexico, however, is known as "El Camino Real," sometimes poetically translated as "The King's Highway," but its accurate interpretation is simply the Main Road. At the present time this road is completed a distance of more than five hundred miles, from the state line of Colorado north of Raton, by the way of Las Vegas, Santa Fe, Albuquerque, Los Lunas, Socorro, San Marcial, Rincon, Las Cruces, to the state line at Anthony, leading thence into El Paso, Texas. It will be several years, however, before this road can be brought up to the standard that the State Highway Commission intends that it shall eventually attain, but it is open for traffic the year round, even under present stand-

ard and conditions. But the State Highway Commission has outlined tentative plans for a road system throughout the state that is calculated to reach all the county seats and the principal towns and communities, giving due consideration to directness of route, benefits to be derived and accommodations to settled communities, with standard plans of road construction and crossings for rivers and arroyos to be of a high class and permanent. Where roads are for temporary use to permit inter-county traffic, a cheaper form of construction is employed. These plans contemplate about four thousand miles of good roads.

One of the functions of the State Highway Commission is to work out plans and construct a state highway system co-operating with county commissioners in building inter-county roads, with the result that a well-developed highway system is now receiving benefits of state funds with the assistance of county money wherever demanded. The total amount of money available from all sources for the building of these highways during the year of 1916 is \$1,247,227.

From these facts and figures obtained from the State Engineer's office, it may be seen readily that New Mexico is not lacking in energy and enterprise in the matter of public highways, and that it will be but a comparatively short time until the farmer will be able to market his products at a greater distance than at present, through the ever extending system of good roads.

SCHOOLS OF THE STATE.

One of the first considerations to the homeseeker, is the question of schools. As heretofore stated, Congress granted to New Mexico an endowment of 12,000,000 acres of public lands, revenues from the sale and lease of which are to be devoted to the support of higher educational institutions, public schools, semi-chari-

table and penal institutions. The school laws are modern and efficient, and every community throughout the state is an active force in forwarding the educational movement. During the year 1915 a concerted war was waged against any degree of illiteracy in the state, and the establishment of evening schools has materially aided in this campaign.

There is a state superintendent of public instruction and a state board of education, while each county has its superintendent of public schools who works in conjunction with the state officers, and the beneficial results of this system are seen in the increasing number of school houses that are being built as rapidly as the needs of the districts demand them; while every city and town maintains its own public school department.

The public school system of New Mexico compares favorably with that of any state in the Union. It operates under the uniform text-book system and for the fiscal year ending June 30, 1915, a total of \$1,549,825 was expended in maintaining the elementary and high schools of this state. There is a compulsory education law which is rigidly enforced.

In addition to the public schools New Mexico maintains the following State Institutions of learning:

University of New Mexico, at Albuquerque; College of Agriculture and Mechanic Arts, at Mesilla Park, Doña Ana County; School of Mines, at Socorro; New Mexico Military Institute, at Roswell, Chaves County; New Mexico Normal School, at Silver City, Grant County; New Mexico Normal University, at Las Vegas, San Miguel County; New Mexico Spanish-American Normal School, at El Rito, Rio Arriba County; Institute for the Blind, at Alamogordo, Otero County, and the Institute for the Deaf and Dumb, at Santa Fe, the state capital.

The United States Government also maintains several schools for Indians in this state, notably those at Albuquerque; Santa Fe; Blackrock, in

McKinley County; Dulce, in Rio Arriba County, and at Shiprock, in San Juan County, which last mentioned school took first prize for its industrial exhibit at the state fair held at Albuquerque in October of 1915.

In addition to these there are many mission schools, sectarian and private educational institutions and those in charge of religious orders, all of which give the children of New Mexico every advantage for broad and liberal education.

CHURCHES OF NEW MEXICO.

Homeseekers who may be desirous of some assurance that the religious element of life in New Mexico is not lacking, before investigating the material advantages of the state, need have no hesitancy in taking up their residence here, as the spiritual needs of the people are especially well cared for.

There are houses of worship in every city and town, and in most of the villages of the state, while numerous cross-crowned, wayside chapels are an attractive feature of the country districts.

The various Protestant denominations are well represented throughout New Mexico in churches, missions and schools.

The Jews have fine synagogues at Las Vegas and at Albuquerque, each with a permanent Rabbi in charge, and in addition thereto are Temple Aid Societies and branches of the Independent Order B'nai B'rith, both active benevolent organizations. There is a small Jewish congregation at Roswell, but it has no permanent building nor Rabbi.

The Catholic Church is in evidence in every part of the state with its church buildings and religious institutions of learning and charity. Many of its old mission buildings, some of which ante-date those of California by more than a century, still are used as places of worship and form one of the many tourist attractions of the state.

WAGES AND THE COST OF LIVING.

Skilled workmen, as a rule, find no difficulty in securing employment in the leading cities and towns of New Mexico, while the many mining camps of the state offer continual opportunities for work. The wage scale is that of other states, and there has been a noticeable freedom from labor troubles in all of New Mexico's industries.

The cost of living in this state is little different from that of other western states, the fluctuations in prices being governed here, as elsewhere, by the laws of supply and demand. Freight rates on goods shipped from a distance have an influence on prices, but the cost of living is no greater than in most cities, while in the farming districts and even in many of the villages much of the home foodstuff can be raised on small patches of ground, with chickens and cows as a first aid to the housewife.

OTHER THINGS OF COMMERCIAL VALUE.

In the preceding pages we have endeavored to give an accurate but general idea of the resources and possibilities of this great State of New Mexico. However, there are other things of commercial value raised in this state in the various counties, of which particular mention has not been made. As an instance, the bee industry is exceptionally prosperous, although on a small scale. From practically every locality where fruit and alfalfa are grown there are shipments of honey, the quantity of which is difficult to determine as these shipments, necessarily, are small from each producer.

Poultry raising always is a profitable adjunct to each farm and ranch. The most extensive poultry farm in the state is located at Tularosa, in Otero County, where the owner has ten thousand White Leghorn chick-

ens, and for the past three years has obtained an unvarying price of sixty-five cents a dozen for eggs; all of them are marked with the date on which they are laid, and most of them are shipped to Los Angeles, California, for use in sanatoriums and health resorts.

Creamery products have been mentioned, and in a new country, where rough feed and the silo are used in conjunction, nothing is more profitable. The cow produces the butter fat, raises a calf which either will be a butter fat producer itself, or later become a marketable commodity for veal or beef, while stock on the farm enrich the soil. Hogs are another adjunct to this industry. Practically every postoffice in the northeastern part of the state is an agency for some creamery, sending out the call for butter fats.

As many of us cannot reach beyond a certain point on life's highway to wealth, what is more attractive and comfortable than a small ranch with a few cows, pigs and chickens, and perhaps some sheep. Butter, eggs and fresh milk bring health and happiness to people that have lived a crowded city life. The production of these things means healthful occupation in the open air, and the Agricultural Department of the United States will furnish, free of charge for the asking, full information in regard to the care required for these products at the minimum cost, in any locality desired. In addition to this, there are many counties in New Mexico that employ a District Agriculturist, whose duty it is to study the problems that confront the farmers of his particular district, and assist them in every way possible, with practical advice, to a solution of the best ways and means of deriving the maximum profit from a minimum investment. This has proved of inestimable benefit to the newcomer in the state, as well as helpful to many older residents.

COUNTIES OF NEW MEXICO AND THEIR PUBLIC LANDS.

The twenty-six counties of New Mexico and their leading cities, with population as given in the Census of 1910, with a short sketch of the resources and industries, together with available public lands in each county, are here mentioned separately, as follows:

BERNALILLO COUNTY.

Population in 1910, 23,606; county seat, Albuquerque; acreage open to entry under U. S. Land Office at Santa Fe, surveyed, 65,419; unsurveyed, 21,700.

Principal city, Albuquerque; population, 11,020; altitude, 4,949; towns, Old Albuquerque, population, 2,143; Griegos, population, 746; Alameda, population, 554.

Bernalillo County, situated in the central part of the state, is the smallest, and yet one of the oldest counties in New Mexico. Lands lying in the Valley of the Rio Grande have been cultivated for centuries, from generation to generation, many of the titles coming down from the original Spanish grants, while others have been acquired by homestead. The public lands in this county are scattered, as the more desirable agricultural lands have been taken up for many years, but there are still some very good tracts in quarter sections that may be obtained which could be watered either by sinking wells and installing pumping plants, or by storage water. However, it would require close investigation to locate them, and to ascertain the exact lines of surveys and description of tracts desired.

The Rio Grande flows through the county from north to south, and the valley along its course is very productive in vegetables, fruits and grains, as well as alfalfa, the latter being one of the staple crops. The Indian Pueblo of Isleta is located in this valley, about twelve miles south of Albuquerque, and the pueblo lands

comprise some of the best in this locality, which have been cultivated successfully for many generations, while other portions of these lands are not so desirable.

The cultivated area in this county is being rapidly improved and extended, and irrigated lands can be purchased at reasonable figures, considering their productiveness.

Albuquerque, the county seat, is the largest city in the state. It was founded by Spaniards about 1706, and therefore is closely associated with the early history of New Mexico. With the advent of trans-continental railroad lines into this country the ancient city awoke to a new activity, and took its place at the head in the march of Progress.

Since the last census Albuquerque has advanced very rapidly, and it is now estimated that her population is not less than fifteen thousand. This city is on the main line of the Atchison, Topeka & Santa Fe Railway running from Chicago to the Pacific Coast, and this railway system maintains extensive shops at this point. Also large shipments of wool are sent out from here, and one of the biggest lumber mills in the United States is located at Albuquerque, most of its logs being shipped down from the Zuñi Mountains.

Among the principal buildings may be mentioned a fine Federal Building, a handsome Commercial club that would do credit to a much larger city, the New Mexico State University, and the magnificent depot and hotel built by the Atchison, Topeka & Santa Fe Railway. One of the largest of the U. S. Indian Schools is located but a short distance from this city.

A creamery is among the industries in operation at this place, affording a ready market for dairy products. A fine bridge across the Rio Grande gives access to the farm lands west of Albuquerque.

There is a fine system of street railways run by electric power throughout the city. The streets are

wide, well paved thoroughfares with many fine store and office buildings in the business center. The residence streets are beautifully shaded with stately trees, and the flower gardens about the homes are an especially attractive feature of the residence districts.

Albuquerque has quite a number of good hotels, some of them first class, and all the state fairs and many notable conventions have been held in this city. Her city scholos are among the best in the state.

East of Albuquerque, in the Sandia mountains, there are several very promising mining districts, the principal products being gold, copper and lead.

According to compilations made by the U. S. Weather Bureau, at Santa Fe, from the records of the station at Albuquerque, the normal annual precipitation for this county amounts to 7.5 inches; normal seasonal, from April to September, 4.9 inches; normal seasonal snowfall, 7.7 inches; mean annual temperature, 56°; mean winter temperature, 36°; mean summer temperature, 75°.

CHAVES COUNTY.

Population in 1910, 16,850; county seat, Roswell; acreage open to entry, under U. S. Land Office at Ft. Sumner, surveyed, 610,733; unsurveyed, none. Under U. S. Land Office at Roswell, surveyed 980,270; unsurveyed, 474,716.

Principal cities and towns: Roswell, population 6,172; altitude 3,570; Hagerman, population 449; Dexter, population 242; Lake Arthur, population 344.

Chaves County is situated on the eastern border of New Mexico toward the south. During the year of 1915 the sales and leases of state lands in this county have been very large. There is a considerable amount of state land in this county now under lease, but which is for sale, and there are still many thousands of acres open to entry on the wide plains. Water must be devel-

oped on these lands either by drilling, digging wells or by storage reservoirs. An extensive part of the lands lie west of the Pecos River, which flows through the county from north to south, and some of these lands are in what is known as the "Artesian Belt," where many artesian wells have been sunk which have produced a steady flow of water. Several other fine streams add to the water supply of this county, and dry-farming along the Pecos River has proved very successful, but the outlying lands require irrigation in order to insure good crops. Pecos Valley apples are celebrated for their richness of flavor and as a marketable commodity are unsurpassed. Prunes and apricots are another specialty in this valley, and this county contains some of the finest orchards in the state, as well as some small truck farms that have been a paying investment from the start. The Denia onion, which is a much larger onion than the Bermuda, but of the same color and flavor, is another big producer of this valley. Hogs and poultry flourish in this county because of the productiveness of the soil which decreases the cost of fattening them for market. Canteloupes, melons and alfalfa are among the staple crops of this county, and vegetables, grains, and especially field corn, are raised in great abundance. Corn grown without irrigation in the lowlands, during very wet years, has averaged seventy-five and ninety bushels to the acre. There is some alkali in these lands, and in making selections one should be careful in this regard, although sugar beets, sugar cane and Denia onions seem to thrive in that kind of soil. Notwithstanding the encroachment of the farmer, the stock-raiser still looms large in Chaves County, which is a splendid grazing country, and many large herds of cattle and sheep are pastured there.

Roswell is one of the rapidly growing cities of the state. It is of a newer type than some of the older towns,

its houses being constructed mostly of wood or brick, its streets wide, shaded with beautiful trees, paved and sewerred, with a fine water system owned by the city. It is lighted by electricity, but has no street railway. It has a Federal Building which cost the Government \$125,000, and a modern, beautiful Court House which is a credit to the county. There are two first-class hotels in Roswell, and several others that are very good. The New Mexico Military Institute, one of the State Institutions, is located at Roswell.

The Santa Fe Railway is the only one running through Roswell, but there is a daily automobile service into Lincoln County, on the west, connecting with points on the Rock Island system, and other railroad lines have been surveyed, so that there is some prospect of further outlets in the near future. The county roads of Chaves County are a credit to its enterprising citizens, many of the public highways being lined on either side with shade trees.

A large cement plaster plant is located at Acme, in Chaves County, utilizing the gypsum deposits for manufacturing much of its output.

Chaves County is a part of the rich Pecos Valley, and its climate is very delightful, offering inviting opportunities to the homeseeker and investor.

Normal annual precipitation in this county is 14.2 inches; normal seasonal from April to September, 9.7; normal seasonal snowfall, 11.3 inches; mean annual temperature, 60°; mean winter temperature, 41°; mean summer temperature, 77°. Weather Bureau station located at Roswell. Statistics compiled by the Bureau at Santa Fe.

COLFAX COUNTY.

Population in 1910, 16,460; county seat, Raton; acreage open to entry under U. S. Land Office at Santa Fe, surveyed, 13,680; unsurveyed, none. Under U. S. Land Office at Clayton, surveyed, 45,620; unsurveyed, none.

Principal cities and towns: Raton, population, 4,539; altitude, 6,668; Dawson, population, 3,119; Cimarron, population, 791; Springer, population, 550; Maxwell, population, 395.

Colfax County is situated on the northern border of New Mexico, and is one of the richest in the state industrially and in opportunities. According to the Annual Report of the State Mine Inspector for 1915, Colfax continues to be the principal producer of coal in the state. Its total output for 1915 amounted to 2,938,308 tons of coal, and 364,873 tons of coke, from which it may be seen that the coal mines of this county are one of her biggest assets. These mines furnish all the coal and coke used at the big copper mines of Douglas, in Arizona, and at Cananea, in Old Mexico.

There are a great number of coal mines in this county, those at Dawson being the most extensive in the west, while large deposits are still undeveloped. In the northern part of the county, in the Elizabethtown section, there are promising mining claims where placers have been worked for years, producing a large amount of gold, and where there is an indication of further rich development.

An extensive land grant, coming down from the time of the Mexican régime, extended over most of this county, but the title thereto has been settled, and there is ample opportunity for securing vacant lands.

One large private company has reclaimed 22,000 acres, and the Farmers' Development Company has reclaimed 10,000 acres in the neighborhood of Springer. Other projects have been established by private capital within the county and an avenue opened to the small farmer. In the eastern part there still remains a large extent of public domain. The county is advancing rapidly in population and wealth. Raton is among the more desirable residence cities in the state, fully up-to-date, owning its own electric lighting system. It is on the main line of the Atchison, Topeka & Santa Fe Railway, and a

branch line operated under the name of the St. Louis, Rocky Mountain & Pacific, running through Cimarron into Ute Park, has headquarters at Raton. There is a good prospect of an extension of this line west into Taos Valley.

The normal annual precipitation of this county is 15.7 inches; normal seasonal, from April to September, 12.6 inches; normal seasonal snowfall, 29 inches; mean annual temperature, 50°; mean winter temperature, 32°; mean summer temperature, 67°. Weather Bureau station at Raton. Statistics compiled by the Bureau at Santa Fe.

CURRY COUNTY.

Population, in 1910, 11,443; county seat, Clovis; acreage open to entry under U. S. Land Office at Ft. Sumner, surveyed, 15,214; unsurveyed, none. Under U. S. Land Office at Tucumcari, surveyed, 2,054; unsurveyed, none.

Principal cities and towns: Clovis, population, 3,255; altitude, 4,200; Melrose, population, 700; Texico, population, 409. The altitude of these towns is about the same as that of Clovis, the lay of the land being quite level.

Curry County, situated on the eastern boundary of New Mexico, is one of the rapidly developing sections of the state and is an example of western growth where opportunities are favorable. In 1906 the site of the present prosperous municipality of Clovis was an unbroken plain. Today it is a modern, progressive little city with a prosperous future well assured. It is a junction point of the Belen Cut-Off and the Pecos Valley branch of the Atchison, Topeka & Santa Fe Railway, and more railroad building from this point is now under consideration. Railroad shops are maintained at Clovis, and the surrounding country districts are rapidly settling up.

This part of the state has been, and probably always will be, a dry-farming section, which method has proven very successful as evidenced

by the prosperous farming communities in this county.

The normal annual precipitation for this county is 19.7 inches; the normal seasonal precipitation, from April to September, is 15.4 inches; the normal seasonal snowfall amounts to 17.6 inches; mean annual temperature, 56°; mean winter temperature, 36°, and mean summer temperature, 75°. These statistics were compiled by the Weather Bureau of Santa Fe, from figures reported by the station at Clovis, and cover a period of five years only.

DOÑA ANA COUNTY.

Population in 1910, 12,893; county seat, Las Cruces; acreage open to entry under U. S. Land Office at Las Cruces, surveyed, 1,483,460; unsurveyed, 223,893.

Principal cities and towns: Las Cruces, population, 3,836; altitude, 3,835; Mesilla Park, population, 1,100; Doña Ana, population, 830; Rincon, 398.

Doña Ana County is situated on the southern border of New Mexico, and is one of the richest sections in the Rio Grande Valley. The lands north of Las Cruces are open to entry. One of the largest irrigation projects ever instituted, the Elephant Butte, hereinbefore mentioned, waters lands in this vicinity.

The Rio Grande flows through Doña Ana County from north to south, and east and west of the Rio Grande Valley, on the higher levels, there are thousands of acres open to entry. One of the richest spots in the west is the Mesilla Valley. It is a veritable garden, where fruits and vegetables grow to rare perfection, and they are staple crops. Among the industries of this valley may be mentioned grape growing and wine making. Also alfalfa and canteloupes are raised with great success. The Mesilla Valley canteloupe has an established reputation in the principal markets of the United States.

At Mesilla Park, in this valley, is located the New Mexico College of

Agriculture and Mechanic Arts, which has an experimental farm in connection with the college work that aims to introduce the best methods of farming to the New Mexico farmer.

The leading industry in Doña Ana County is agriculture, where it can be made a great success. Some attention also is given to stock raising. In the Organ Mountains, east of Las Cruces, there are some good gold, silver, copper and lead mining prospects.

Las Cruces is one of the old towns of the state, and it is only in comparatively recent years that it has become somewhat modernized. It is on the line of the Santa Fe Railway, about twenty miles from the south boundary of the state.

The normal annual precipitation for Doña Ana County is 8.6 inches; normal seasonal precipitation, from April to September, 5.8 inches; normal seasonal snowfall, 3.1 inches; mean annual temperature, 61°; mean winter temperature, 44°; mean summer temperature, 79°, according to statistics prepared by the U. S. Weather Bureau at Santa Fe, from figures furnished by the station at the New Mexico Agricultural College.

EDDY COUNTY.

Population in 1910, 12,400; county seat, Carlsbad; acreage open to entry under U. S. Land Office at Roswell: surveyed, 1,798,680; unsurveyed, 1,045,782.

Principal cities and towns: Carlsbad, population, 1,736; altitude, 3,102; Atesia, population, 1,900; Dayton, population, 280; Lakewood, population, 729; Hope, population, 417. The altitude of all these towns is about that of Carlsbad.

Eddy County is situated in the southeastern corner of New Mexico, and is crossed by the Pecos River from north to south. A portion of it is in the Artesian belt, and its climate is a very pleasant one. The land is mostly prairie, and is adapted to agriculture, horticulture and grazing.

The towns lying directly in the Artesian belt are Artesia, Dayton and Lakewood. Extending from Artesia to Lakewood are numerous oil wells, a few of which are productive. A cement plaster plant operating at Oriental, south of Lakewood, uses oil from these wells for its fuel, and also utilizes the gypsum deposits in this vicinity in manufacturing its output.

The Carlsbad Irrigation Project, under the U. S. Reclamation Service, is in operation in this county, using the waters of the Pecos River for irrigating the lands under the system, south of Carlsbad. Also there is irrigation from the waters of Black River, Peñasco, Delaware, and other streams that flow through this county. In the eastern part of Eddy County, where stock-raising is a profitable industry, dry-farming methods are followed with success. The main products of the county are fruit, vegetables and grains of all kind. Alfalfa and cotton also are staple crops of this county. Carlsbad peaches have a reputation for fine flavor and beauty of color that makes them marketable. They are especially good for shipping because of their solid meat. English walnuts also are successfully raised in Eddy County.

Telephones extend throughout the county with good outside service. Automobiles also are used to connect the different towns not reached by the line of the Atchison, Topeka & Santa Fe road, which runs through this county.

Stock-raising is one of the principal industries of Eddy County, cattle, sheep, horses, Angora goats and wool being the shipments from this section. In addition to these there are extensive shipments of turkeys, and other poultry, which is another profitable industry of this county.

Carlsbad is a pleasant, modern town, with many shade trees. The public schools are excellent and the buildings attractive. Artesia is another pretty town, up-to-date and prosperous with fertile farms surrounding it. Lakewood and Dayton

also are attractive little towns, and Hope vindicates its title by the atmosphere of hopefulness that surrounds it. On the eastern and north-eastern plains are Monument, Knowles and Lovington, settlements that have grown up in recent years and are still in the course of development.

In the western part of the county, in the Guadalupe Mountains, copper and other minerals are found. The Alamo National Forest is partly in the southwestern portion of the county.

Immigration into Eddy County has been steady for several years, but there is still plenty of productive land for the homeseeker or investor.

The normal annual precipitation in Eddy County is 14.3 inches; normal seasonal precipitation, from April to September, 10.5 inches; normal snow-fall, 5.9 inches. Mean annual temperature, 63°; mean winter temperature, 45°, and mean summer temperature, 80°, according to statistics prepared by the U. S. Weather Bureau at Santa Fe, from figures furnished by the station at Carlsbad.

GRANT COUNTY.

Population in 1910, 14, 813; county seat, Silver City; acreage open to entry under U. S. Land Office at Las Cruces, surveyed, 700,156; unsurveyed, 1,113,544.

Principal cities and towns: Silver City, population 3,217; altitude, 5,931; Lordsburg, population 1,323; Santa Rita, population 1,400; Fort Bayard, population 600; the altitude is greatest at Santa Rita, which is 6,325.

Grant County is situated in the southwest corner of New Mexico, and possesses remarkable resources. The opportunities for stock-raising are exceptionally good, while agriculture is developing to a high degree of success. Mining activities in this county are among the greatest in the west. The production of copper is immense, and that of gold and silver is rapidly increasing. The

out-put of copper ore from mines in this county during 1915, according to the U. S. Geological Survey was approximately 70,000,000 pounds. The Chino Copper Company, at Santa Rita, is one of the principal producers of copper ore in the west.

Silver City is the center of the mining interests, and is one of the very active cities of the west. It offers a continuous market for the products of the farm, and is a prosperous municipality, where some of the leading stockmen of the state make their homes, adjacent to their extensive ranges.

In the mountain sections the growing of Angora goats has become profitable.

Silver City is quite modern, with a very good public school system, and it is in this city that one of the State Normal Schools of New Mexico is located. The Santa Fe railway running from Deming, reaches this city.

Lordsburg is on the main line of the Southern Pacific railroad, and is the center of another mining district, surrounded by great cattle ranges, with lands open to the homesteader or entryman.

There are some fine mineral springs located in this county, and the Gila National Forest takes in a part of the northerly section, while the Chiricahua National Forest is in a portion of the southwestern section.

The normal annual precipitation in Grant County is 15.4 inches; normal seasonal precipitation, from April to September, 9.8 inches; normal seasonal snowfall, 14.2 inches. Mean annual temperature, 56°; mean winter temperature, 42°, and mean summer temperature, 72°, according to statistics prepared by the U. S. Weather Bureau at Santa Fe, from figures furnished by the station at Fort Bayard.

GUADALUPE COUNTY.

Population in 1910, 10,927; county seat, Santa Rosa; acreage open to entry under U. S. Land Office at

Ft. Sumner, surveyed, 458,952; unsurveyed, none; under U. S. Land Office at Tucumcari, surveyed, 51,275; unsurveyed, none. Under U. S. Land Office at Santa Fe, surveyed, 425,052; unsurveyed, 16,550.

Principal cities and towns: Santa Rosa, population 1,031; altitude, 4,800; Vaughn, population 1,224; Cuervo, population 545; Ft. Sumner, population 500. The highest altitude is at Vaughn, 6,000 feet.

For many years Guadalupe County, situated in the eastern central part of the state, has been a great stock-raising section. It is part of the extensive Pecos Valley, and farming is successfully carried on along the Pecos River and its tributaries. There is a large amount of public land open to entry in this county, and it has been shown that during a record of five years, with an average rainfall, crops such as milo maize, beans, kafir corn and other cereals, can be grown successfully without irrigation. Throughout this county for years past these crops have thrived. The opportunities in this part of the state are exceptionally good for stock-raising which has furnished the principal wealth of the county, thus far. With the growth of food crops for winter feeding, rich returns are possible.

With the advance and a better knowledge of dry-farming, this county is sure to develop more rapidly. Water has been found at a depth of from 80 to 150 feet, and pumping for irrigation may be made a success.

Santa Rosa, the county seat, is on the main line of the Rock Island Railroad, and is about ten years old. It is finely located and is a growing town.

Ft. Sumner, since the institution of the irrigation project in that locality, gives promise of substantial growth. It is on the line of the Belen Cut-off of the Santa Fe Railway.

The normal annual precipitation in Guadalupe County is 14 inches; normal seasonal precipitation, from

April to September, 10.2 inches; normal seasonable snowfall, 17.5 inches; mean annual temperature, 57°; mean winter temperature 39°; mean summer temperature, 75°, according to statistics prepared by the U. S. Weather Bureau at Santa Fe, from figures furnished by the station at Santa Rosa.

LINCOLN COUNTY.

Population in 1910, 7,822; county seat, Carrizoso; acreage open to entry under U. S. Land Office at Roswell, surveyed, 718,835; unsurveyed, 349,319; under U. S. Land Office at Ft. Sumner, surveyed, 468,993; unsurveyed, none.

Principal cities and towns: Carrizoso, population 1,082; altitude, 5,429; Ft. Stanton, population 500; Lincoln, population 1,000; Capitan, population 300; altitude, 6,500 feet.

Lincoln County, situated in the southern central part of the state, has long been known for its fine fruits: also it has produced very large crops of grain and vegetables in its rich valleys, and on its mesas crops have been raised for years without irrigation. The lands along the streams in this county have been taken up, but there still remain many good locations on the plains and in the mountain valleys, where lands are available and where water may be developed. There are large cattle and sheep ranches in this county, and Angora goat raising has become a profitable industry in recent years. A cement plaster plant at Ancho utilizes gypsum deposits of this county.

Lincoln County also has a reputation as a gold producer, the White Oaks District being one of the most promising in the west. Recent developments indicate the calling of still further attention to this rich mineral section through the discovery of tungsten ore. Coal also has been discovered in the Capitan and White Oaks regions.

Carrizoso is situated in a very attractive valley, and is only about nine years old. It is on the main line of

the El Paso and Southwestern railroad. Lincoln is an old town, the county seat until 1909, and was the scene of some very stirring events in the early history of the west.

The Lincoln National Forest is located in the southern and western parts of this county, and in the extreme southwestern corner are some lava beds of much interest.

The normal annual precipitation in Lincoln County is 16.7 inches; normal seasonal precipitation, from April to September, 11.7 inches; normal seasonal snowfall, 19 inches; mean annual temperature, 52°; mean winter temperature, 37°, and mean summer temperature, 68°, according to statistics prepared by the U. S. Weather Bureau at Santa Fe, from figures furnished by the station at Ft. Stanton.

LUNA COUNTY.

Population in 1910, 3,913; county seat, Deming; acreage open to entry under U. S. Land Office at Las Cruces, surveyed, 766,483; unsurveyed, 370,850.

Principal cities and towns: Deming, population 1,864, (now estimated at 3,500); altitude, 4,315; Columbus, population 268.

Luna County is situated on the southern border of the state, and prior to 1910 was regarded as a cattle country only, but the underflow water has been developed, and a pumping system for irrigation maintained, which has advanced the agricultural interests very materially. In no part of New Mexico has the pumping system been brought to such a successful issue as has been achieved in the Mimbres Valley, in Luna County. A number of small individual ventures have proven very successful, the water supply apparently being inexhaustible, and it is of extraordinary purity. The soil is of remarkable fertility, and the climatic conditions very attractive. Homesteads and desert claims have been located as far as twenty and

thirty miles from Deming. The health conditions are good. In the mountains surrounding the valley minerals have been discovered, and that section promises to become a well defined mining country. New developments are being projected and new settlements planned in the extensive valleys.

Deming is an attractive, western town with pretty homes, excellent schools and many modern conveniences, with a social atmosphere that is delightful. The spirit of progress dominates the people, and they have made the little New Mexico city known from coast to coast. Three railroads enter Deming, the Santa Fe, the Southern Pacific and the El Paso & Southwestern. El Paso, Texas, provides an excellent market for Luna County products. Peaches, pears, prunes and plums are grown to perfection in this locality. A cannery is established in this county where large quantities of tomatoes are packed and shipped, and a creamery is in operation at Deming.

The normal annual precipitation in Luna County is 10 inches; normal seasonal precipitation, from April to September, 6.6 inches; normal seasonal snowfall, 4.4 inches; mean annual temperature, 59°; mean winter temperature, 43°, and mean summer temperature, 77°, according to statistics prepared by the U. S. Weather Bureau at Santa Fe, from figures furnished by the station at Deming.

M'KINLEY COUNTY.

Population in 1910, 12,963; county seat, Gallup; acreage open to entry under U. S. Land Office at Santa Fe, surveyed, 527,507; unsurveyed, 154,891.

Principal towns: Gallup, population 2,204; altitude, 6,506; Gibson, population 800.

McKinley County is situated on the western border of the state, and while the more favorable locations have been taken up, there are sections available in the Zuñi Mountains suitable for farming. Large crops of

oats, barley and potatoes are raised, but the main industry of McKinley County is coal mining, and some of the most extensive coal mines in the west are located in this county. According to the annual report of the State Mine Inspector, for 1915, this county produced all of the sub-bituminous coal that was mined in the state during that year, the entire output amounting to 758,559 tons.

There is a good deal of timber in McKinley County, and lumber companies have found it profitable to operate in this part of the state for years. Oil has been discovered in the Seven Lakes District, where extensive prospecting has been done. Stock-raising is, and for many years past has been, a principal industry of this county.

Gallup is a wide-awake little city that offers a constant and excellent market for all the products of the farm. It is on the main line of the Atchison, Topeka & Santa Fe Railway, running from Chicago to the Pacific Coast, and one of its Harvey Houses is located at Gallup. The coal mines, only a short distance from this town, afford another good market for farm produce.

Gallup has many of the conveniences of a modern city, with some very good hotels, and its public school system is of a high class.

A part of the Zuñi National Forest, all of the Fort Wingate Military Military Reservation, and a part of the Zuñi Indian Pueblo and Reservation, as well as a part of the Navajo Indian Reservation, are located in this county.

The normal annual precipitation for McKinley County is 14.5 inches; normal seasonal precipitation from April to September, 8.2 inches; normal seasonal snowfall, 37.1 inches. Mean annual temperature, 51°; mean winter temperature, 33°, and mean summer temperature, 70°, according to statistics prepared by the U. S. Weather Bureau at Santa Fe, from figures furnished by the station at Fort Wingate.

MORA COUNTY.

Population in 1910; 12,611; county seat, Mora; acreage open to entry under U. S. Land Office at Santa Fe, surveyed, 92,823; unsurveyed, 17,464; under U. S. Land Office at Clayton, surveyed, 23,680; unsurveyed, none.

Principal towns: Mora, population 817; altitude, 7,200; Wagon Mound, population 815; La Cueva, population 461; Watrous, population 250; Roy, population 350; Mills, population estimated at 350.

Mora County is situated in the northeastern part of the state, and within the past year, of 1915, there has been a heavy immigration into this county. Some large tracts of land have been taken up, but there still remain many good locations on the plains and along the eastern and northern boundaries of the county. The river bottom lands have been under cultivation for a good many years, and have long since been taken up. The field crops in this county are of a superior quality, and the best of fruit is grown on the valley lands. Only recently has Mora county been brought to notice as a desirable location, since which time it has developed rapidly. Irrigation has been by private enterprise, but the unirrigated lands about Roy, Watrous and Mills have proven very productive, these towns being in a section where large quantities of wheat, corn and barley are raised.

For years this county has been noted for its cattle industry, and large herds of cattle and sheep have grazed on its wide ranges. Part of the Pecos National Forest is located in the southwestern corner of Mora County.

The normal annual precipitation in this county is 18.6 inches; normal seasonal precipitation, from April to September, 14.9 inches; normal seasonal snowfall, 20.3 inches; mean annual temperature, 49°; mean winter temperature, 33°, and mean summer temperature, 66°, according to statistics prepared by the U. S.

Weather Bureau at Santa Fe, from figures furnished by the station at Fort Union.

OTERO COUNTY.

Population in 1910, 7,069; county seat, Alamogordo; acreage open to entry under the U. S. Land Office at Roswell, surveyed, 192,791; unsurveyed, 696,076; under the U. S. Land Office at Las Cruces, surveyed, 1,158,035; unsurveyed, 470,597.

Principal towns: Alamogordo, population 1,948; altitude, 4,303; Tularosa, population 1,022.

Otero County is situated on the southern border of the state, and in this county there is a very large acreage open to entry, though in the majority of cases, water will have to be developed by wells or by storage reservoirs, but this is by no means impossible. Efforts in the way of well drilling for water for irrigation purposes have proven successful already. The lands in this county are wonderfully productive in fruits, vegetables and grains, the warm, climatic conditions being conducive to excellent results, and the fruits raised in Otero County are as fine as can be found anywhere. A canning factory is located at Alamogordo, peaches and pears being the principal products used.

There are promising openings for the homesteader along the line of the El Paso & Southwestern railroad, which runs through this county from north to south, and the results attained by farmers about Alamogordo, Tularosa and La Luz prove conclusively what can be done by systematic and energetic endeavor.

Tularosa is one of the old settlements and has become better known recently as a very desirable farming and fruit growing section. Stock-raising has been, and will continue to be, one of the main industries of this county. Mining in the Jarilla and Oro Grande camps has been in operation for some time, and ores of gold, silver and copper of a high grade have been found in sufficient

quantities to warrant the institution of a smelter.

Alamogordo, the county seat and principal town, is on the main line of the El Paso & Southwestern railroad and is a delightful little city, with excellent schools. The New Mexico Institution for the Blind is located here. A branch line of railroad runs by switch-back up into the mountains to Cloudcroft, a well known summer resort of the southwest.

Tularosa, the next town in size and importance, is surrounded by an agricultural country, as yet practically undeveloped, but with irrigation and dry-farming methods combined, this part of the county will advance rapidly in point of productiveness.

The Mescalero Apache Indian Reservation, and the Alamo National Forest are located in Otero County, and one of the greatest natural curiosities in the state, the White Sands, also is found principally in this county, just west of Alamogordo. These sands are the result of wind erosion in the gypsum beds that abound in that section, in what is known as the Alkali Flats; deep depressions walled with gypsum the fine crystals of which have been blown by storm winds until they have formed immense dunes of white sands, wider in some places than in others and irregular in length, but the area would be equivalent to a rectangular figure twelve miles wide by twenty-two and a half miles long. These immense dunes are slowly shifting, it being estimated that they have moved about a mile in twenty years, according to the report of the United States Geological Survey.

The normal annual precipitation in Otero County is 11.3 inches; normal seasonal precipitation, from April to September, 7.2 inches; normal seasonal snowfall, 7.9 inches. Mean annual temperature, 61°; mean winter temperature, 43°, and mean summer temperature, 78°, according to statistics prepared by the U. S. Weather Bureau at Santa Fe, from figures furnished by the station at Alamogordo.

QUAY COUNTY.

Population in 1910, 14,912; county seat, Tucumcari; acreage open to entry under U. S. Land Office at Tucumcari, surveyed, 174,189; unsurveyed, 11,567; under U. S. Land Office at Clayton, surveyed, 12,800; unsurveyed, none.

Principal towns: Tucumcari, population 2,526; altitude, 4,185;; Nara Visa, population 500; Montoya, population 500; Bard City, population 400.

Quay County, situated on the eastern border of the state, has made rapid progress during the past few years, since 1912. It is one of the newer counties, but has long been a grazing section and still affords range for large herds of cattle and sheep. Recently there has been a rush of immigration to this county, and hundreds of acres have been taken up, on which most satisfactory crops have been raised without irrigation, the principal ones being wheat and broom corn. As a matter of fact, the stockman is now giving way to the farmer, and the latter is turning his attention to the raising of milch cows that are producers of butter fat, as there is a demand for this commodity at the creameries in Tucumcari. At its present rate of immigration Quay County will soon be one of the most populous in the state. Several private colonization projects have attracted notice to this part of the state, but there are good lands yet to be had in this county.

Tucumcari, only about twelve years old, already is a thriving little city and a railroad division point, with many modern conveniences, and is taking a place among the most progressive towns of the state. Two creameries are located at Tucumcari, which are supplied from surrounding farms and dairies. The Chicago & Rock Island and El Paso & Southwestern Railroads, with a branch to Dawson, pass this point.

The Canadian River crosses the northern end of the county.

The normal annual precipitation in Quay County is 17.0 inches; normal seasonal precipitation, from April to September, 12.5 inches; normal seasonal snowfall, 27.1 inches. Mean annual temperature, 59°; mean winter temperature, 40°, and mean summer temperature, 77°, according to statistics prepared by the U. S. Weather Bureau at Santa Fe, from figures furnished by the station at Tucumcari.

RIO ARriba COUNTY.

Population in 1910, 16,624; county seat, Tierra Amarilla; acreage open to entry under U. S. Land Office at Santa Fe, surveyed, 463,203; unsurveyed, 201,011.

Principal towns: Tierra Amarilla, population 400; altitude, 7,466; Chama, population, 250; Española, population 400; Chamita, population 300.

Rio Arriba County is situated on the northern border of the state, and is one of the older counties. Many Spanish land grants are located in this county, and became a heritage from the original owners, but there still remain large tracts open to entry containing desirable lands upon which water may be developed. Agriculture is carried on chiefly along the river courses, notably the Rio Grande and the Chama, which, with their tributaries, afford ample water for irrigation and other purposes.

Rio Arriba County is also one of the big stock raising sections of the state, the sheep industry having been the principal one for years, but agriculture has been thoroughly proven, and the fruit grown in this county is of the finest quality, large quantities being shipped from the southern part of the county to outside markets.

Irrigation has not been neglected, and eastern capital has invested heavily, having purchased one of the most prominent land grants with the intention of developing water for irrigation and subdividing the land for settlement.

The only railroad passing through

Rio Arriba County is the Denver & Rio Grande narrow gauge, which cuts through the southeast corner, thence running along the eastern and northern border. Important railroad construction is under consideration, which, if carried out along the lines proposed, will open up a wide and valuable stretch of territory in this county. There is a great deal of timber in Rio Arriba County, the Jemez National Forest and the western portion of the Carson National Forest being located here. Croppings of minerals, which indicate large deposits of coal, copper and silver, make mining on an extensive scale a possibility of the future.

Chama and Chamita are on the line of the railroad, but the county seat, Tierra Amarilla is reached by stage line from Chama, about fifteen miles north.

The New Mexico Spanish-American Normal School is located at El Rito, in Rio Arriba County, and is reached by stage from La Madera on the branch line of the Denver & Rio Grande Railroad running from Barranca, a station on the main line of that road, or by private conveyance from other stations along this railroad.

The normal annual precipitation in Rio Arriba County is 22.3 inches; normal seasonal precipitation, from April to September, 11 inches; normal seasonal snowfall, 138.5 inches; mean annual temperature, 44°; mean winter temperature, 25°, and mean summer temperature 62° according to statistics prepared by the U. S. Weather Bureau at Santa Fe, from figures furnished by the station at Chama.

The great amount of snowfall given in this report comes from the fact that many high mountains are in Rio Arriba County, and the annual average is increased by the heavy snows in these high ranges. In the lower valleys, however, the snowfall is no greater than in many other places in the state.

ROOSEVELT COUNTY.

Population in 1910, 12,064; county seat, Portales. Acreage open to entry under the U. S. Land Office at Ft. Sumner, surveyed, 98,306; unsurveyed, none.

Principal towns: Portales, population 1,292; altitude, 4,000; Elida, population 227.

Roosevelt County is situated on the eastern border of New Mexico, and the rapidity with which it has grown in the past few years has been one of the remarkable features in the development of the state. In former years its lands, together with other sections in that locality, were regarded as fit only for grazing, and immense herds of cattle and sheep fed on the rich native grasses that grow luxuriantly on its wide plains. But with the advent of the farmer the aspect of the country has changed. The homeseeker has become the home-maker, and has so developed the land that today it is a thriving agricultural region as well as a grazing section. On many of the homesteads water has been found at depths that make pumping possible, and may be operated either by gasoline engines or by wind-mills.

At Portales there is a central pumping plant, opening a large area to irrigation, giving the district a most important project for development. Nine years ago the territory comprising Roosevelt County did not contain more than three hundred people. Today it is the home of many contented farmers, and it is worthy of special mention that at the New Mexico State Fair, held at Albuquerque, in October of 1915, Roosevelt County carried off first honors for its splendid agricultural, horticultural and general county exhibit.

Portales, the county seat, is a growing town and enjoys a substantial and steady commercial activity. It affords a good market for the products of the surrounding farms, some of which are growing vegetables and

grains without irrigation. A creamery recently has been established at Portales.

The Atchison, Topeka & Santa Fe Railway, running south from Clovis, passes through the eastern portion of Roosevelt County, and affords shipping facilities for the surrounding sections, while the Belen Cut-off, of the same railway, passes along the northern part of the county, giving an outlet to markets for products raised in that section.

Its lands are undulating plains. At Elida there is a cement plaster plant which uses the gypsum found in this county.

The normal annual precipitation in Roosevelt county is 20.0 inches; normal seasonal precipitation, from April to September, 15.1 inches; normal seasonal snowfall, 16.8 inches; mean annual temperature, 56°; mean winter temperature, 38°, and mean summer temperature, 74°, according to statistics prepared by the U. S. Weather Bureau at Santa Fe, from figures furnished by the station at Portales, and covering a period of seven years only.

SANDOVAL COUNTY.

Population in 1910, 8,579; county seat, Bernalillo. Acreage open to entry under U. S. Land Office at Santa Fe, surveyed, 337,230; unsurveyed, 339,675.

Principal towns: Bernalillo, population, 1,000; altitude, 5,260; Algodones, population estimated at about 300.

Sandoval County is situated in the north central part of the state, and is one of the new counties, and its resources have not, as yet, been fully exploited, but there is reason to believe that it can be developed into one of the leading agricultural and horticultural sections of the state. The Rio Grande flows through the southeastern portion of the county and the Jemez river cuts across the central and southeastern part, and

the Puerco river through the western, while there are a number of small tributaries to these rivers that help to water the lands of the county. But all of the river valley lands are under private ownership, and there are seven Indian Pueblos in this county which take up considerable good land.

However, there are some good sections of land in the western part of the county that are open to entry, where water may be developed, and when this is done crops of many kinds can be grown to advantage. Already grape growing and wine making are leading industries of this county, some of the finest grapes raised in New Mexico being grown in Sandoval County. Cattle and sheep are another profitable industry of this county, which has been a big stock country for many years.

Also mining is of some importance as an industry in this county, especially in the Cochiti Mining District where copper and gold have been produced. At Hagan important coal fields have been located; also there are strong evidences of oil and prospecting for this fluid is being done extensively.

Bernalillo, the county seat, is one of the old towns of the state, and many of the prominent men of earlier times made their hospitable homes at this place. The main line of the Atchison, Topeka & Santa Fe Railway runs through the southeastern corner of Sandoval County, affording shipping and transportation facilities for that section, but the balance of the county is undeveloped in that regard.

Some of the medicinal hot springs, to which reference has hereinbefore been made, are located in this country, those in the Jemez mountains being especially well known for their curative qualities. Also, there are some ancient cliff dwellings found in this county.

The normal annual precipitation in Sandoval County is 18.9 inches; nor-

mal seasonal precipitation, from April to September, 11.9 inches; normal seasonal snowfall, 40.0 inches; mean annual temperature, 50°; mean winter temperature, 32°, and mean summer temperature, 67°, according to statistics prepared by the U. S. Weather Bureau at Santa Fe, from figures furnished by the station at Jemez Springs, and covering a period of five years only.

SAN JUAN COUNTY.

Population in 1910, 8,504; county seat, Aztec. Acreage open to entry under the U. S. Land Office at Santa Fe, surveyed, 807,272; unsurveyed, 495,914.

Principal towns, Aztec, population 500; altitude, 5,590; Farmington, population 800.

San Juan County is situated in the northwest corner of the state, and probably there is no county in New Mexico possessed of more natural resources. Its great difficulty has been, and still is, a lack of adequate shipping facilities, its only railroad outlet being the Denver & Rio Grande line running down from Durango, Colorado, and terminating at Farmington, necessitating the hauling of produce and the driving of stock a long distance to the shipping points. It is an especially well watered county, the San Juan river flowing from east to west across the northern part of it, with Las Animas and La Plata rivers as its principal tributaries.

The Navajo Indian reservation takes in a considerable portion of San Juan County, and the Southern Ute Indian reservation occupies a small section in the north. All of the coal used at the Navajo Indian Agency, at Shiprock, is obtained from the deposits on the reservation; and all of the lumber used is taken from the forests of the reservation.

There are coal deposits throughout the county, but especially along the course of the San Juan river. The

valley lands along this river are known as the San Juan Basin, and they produce some of the finest fruit raised in New Mexico. The apples and peaches grown in this section are unexcelled.

Much wheat and other grains are produced in this county, and there is a flour mill near the boundary line of the Navajo reservation, that utilizes local wheat for its entire output of flour, which is sold to the Indians and not shipped out of the county. With better transportation facilities there would be a splendid opportunity for such industries in this county, as the yield of grain is very heavy.

Stock raising is another leading industry of this county, most of the marketable stock being shipped into Colorado and to eastern points.

While the valley lands have been taken up, there are thousands of acres available on the mesas where grains of all kinds can be grown. Vegetables and alfalfa also are staple crops, and with irrigation produce abundantly.

Several railway projects are under consideration, which, if carried through, will give San Juan County a greater outlet for its products. Even under the present adverse conditions, as high as \$1,500 an acre has been realized from irrigated orchards in the San Juan Basin, which will give some idea of its possibilities with better shipping facilities.

Its coal deposits have been examined by government experts and pronounced among the most extensive in the United States, and of a high grade.

The normal annual precipitation in San Juan County is 9.0 inches; normal seasonal precipitation, from April to September, 5.0 inches; normal seasonal snowfall, 16.5 inches. mean annual temperature, 51°; mean winter temperature, 30°, and mean summer temperature, 71°, according to statistics prepared by the U. S. Weather Bureau at Santa

Fe, from figures furnished by the station at Bloomfield.

SAN MIGUEL COUNTY.

Population in 1910, 22,930; county seat, Las Vegas; acreage open to entry under the U. S. Land Office at Santa Fe, surveyed, 260,037; unsurveyed, 102,435; under the U. S. Land Office at Tucumcari, surveyed, 8,206, unsurveyed, 5,753; under the U. S. Land Office at Clayton, surveyed, 26,800; unsurveyed, none.

Principal towns: Las Vegas, population, 3,179; altitude, 6,391; East Las Vegas, population, 3,755; Rowe, population, 200; Las Animas, population 200; San Miguel, population estimated at about 200.

San Miguel County is situated in the northeasterly part of the state, and is one of the oldest counties in New Mexico. The more desirable lands along the water courses have long since been taken up, but there are some other lands in this county that offer promising opportunities to the homeseeker. There are irrigation projects in contemplation which will be the means of reclaiming thousands of acres of fertile lands.

SanMiguel County has long been a prominent grazing section of the state, and many fortunes have been made from sheep and cattle raised in this county, but much of this grazing territory will eventually be converted into irrigated farms, while some of it is available for dry farming.

There are coal deposits here, especially in the vicinity of Tecolote. Rociada and Mineral Hill, which doubtless will bring wealth to some one in the near future, and the forests of timber are offering opportunities for the establishment of lumber mills.

The Pecos National Forest takes in part of the western portion of San Miguel County, and the Pecos

River has its source in that National Forest, and also the Gallinas River, one of its main tributaries, rises there, while the Red River coming down from the north waters the eastern part of the county. Besides these, there are many small streams tributary to the larger ones.

Las Vegas, the county seat, is one of the most attractive cities in the state. Located on the main line of the Atchison, Topeka* & Santa Fe Railway, which runs through the western part of this county, the little city is modern in many respects, with electric street car lines and a fine school system. It is division headquarters for the Santa Fe railway. Las Vegas is regarded as one of the attractive health resorts of New Mexico. The State Normal University and the State Asylum for the Insane are located at this city.

The normal annual precipitation in San Miguel county is 18.6 inches; normal seasonal precipitation, from April to September, 14.2 inches; normal seasonal snowfall, 28.4 inches; mean annual temperature, 50°; mean winter temperature, 33°, and mean summer temperature, 67°, according to statistics prepared by the U. S. Weather Bureau at Santa Fe, from figures furnished by the station at Las Vegas.

SANTA FE COUNTY.

Population in 1910, 14,770; county seat, Santa Fe, which also is the capital of New Mexico. Acreage open to entry under the U. S. Land Office at Santa Fe, surveyed, 185,085; unsurveyed, 113,160.

Principal cities and towns: Santa Fe, population 5,072; altitude, 6,998; Santa Cruz, population, 417; Cerrillos, population, 676; Madrid, population, 400.

Santa Fe County is situated in the north central part of the State of New Mexico, and is watered by nu-

merous rivers and streams, the principal one being the Rio Grande, which cuts through the northwest corner, but there are many lesser streams flowing through the county which are tributary, either directly or indirectly, to the Rio Grande, and which contribute in a greater degree to the productiveness of the land than does the larger river, because of their availability for irrigation purposes, although a portion of the bottom lands along the Rio Grande, located in Santa Fe County, are extremely fertile, and have been cultivated for many years. The waters of this river constitute a magnificent power, as yet not utilized, as they rush through the deep, rugged walls of the White Rock Cañon, and some day they will be harnessed to machinery and turn the wheels of commerce. Already a project has been started for the purpose of controlling this tremendous force.

The lesser streams include the Santa Cruz, the Santa Clara, Rio Pojoaque, or Nambé, Rio Tesque, Cañoncito, Santa Fe and Gallisteo, all of which have settlements along their banks using the waters for irrigation and domestic purposes. The lands adjacent to these streams are extremely fertile, and the fruits and vegetables produced by the farmers of Santa Fe County are among the best in the state.

The climate of this county is a salubrious one, the winters not being excessively cold, although there is considerable snow in the mountains, and a lighter fall in the valleys, while the summer and autumn months are delightfully cool and pleasant. Thunder showers are frequent during the summers, but these only tend to clear the atmosphere and keep the crops growing. The nights are always cool and restful.

With a good irrigation project successfully launched in Santa Fe County, it would open up to settle-

ment a vast amount of land that now is unimproved, and the farmer would find that all kinds of cereals, alfalfa, deciduous fruits and practically every kind of ordinary vegetable can be grown profitably here. Wherever tried, these crops have been raised in this county, and there are many fine fruit orchards that are paying investments to their owners.

The poultry business is another industry that thrives in this county, and there is a constant demand for home-grown products in the markets of Santa Fe, so that the truck farmer is assured of a living from his land from the beginning, as most of the foodstuffs consumed in the city of Santa Fe are shipped in from points outside of the state.

Three railroads traverse the county, the Denver & Rio Grande, the New Mexico Central, and the Atchison, Topeka & Santa Fe. A short line runs from Cerrillos to the coal mines at Madrid.

Stock raising is a big industry in this county, one of the largest cattle ranches in the state being located in the southern part of the county, while sheep and goats range on the mesas and hills.

Santa Fe County is one of the richest mineral producers in the southwest. Gold, silver, lead, zinc, copper, fireclay and turquoise are found in great quantities, while coal has been mined in different sections for years. The Cerrillos coal fields of this country produce the highest grade of anthracite coal, according to the United States Geological Report, Bulletin 531-J, issued by the Department of the Interior in 1913, and there is much mineral country in the mountains that has been untouched.

Santa Fe, the capital of the state, is full of historic interest. It was founded by the Spaniards some time between the latter part of April, 1605, and the early part of 1608, the exact date not being known, and

is, therefore, one of the oldest cities in the United States, being second only to St. Augustine, Florida. Since its foundation it has been the capital of New Mexico, which originally included a much larger territory than the present boundaries of the state. The city is situated in a natural basin among the foothills of the Rocky Mountains, and to the northeast rise the beautiful peaks of the Sangre de Cristo range, where the Santa Fe River has its source, furnishing pure, cold water to the city through which it flows on its way to join the Rio Grande. The old Plaza of Santa Fe, around which many of the business houses of the city are built, and on which faces the ancient Palace of the Governors, now housing archaeological and historical museums, is one of the historic landmarks of the southwest. Santa Fe has several good hotels, and many important public institutions are located there, among them being, besides the capitol building, a Federal building where several government officials have their offices, including the surveyor-general for New Mexico, the register and the receiver of the United States Land Office. The court rooms of the United States District Court also are in this building. The state branch of the U. S. Weather Bureau, and a branch of the Forestry Department are located in the city, and the State Institution for the Deaf and Dumb, as well as the State Penitentiary, and the U. S. Indian School, are located just outside the city limits.

The Pecos National Forest takes in the northeast corner of the county, and the Pajarito National Park, in which are located many of the ruins of ancient cliff dwellings, occupies a portion of the county west of the Rio Grande. There are five Indian pueblos in the county, besides ruins of many others, and altogether the county of Santa Fe is full of historic interest and scenic

beauty. Its hunting and fishing preserves are unsurpassed.

The normal annual precipitation for Santa Fe County is 14.5 inches; normal seasonal precipitation, from April to September, 9.7 inches; normal seasonal snowfall, 28.7 inches; mean annual temperature, 49°; mean winter temperature, 30°, and mean summer temperature, 67°, according to statistics prepared by the U. S. Weather Bureau at Santa Fe.

SIERRA COUNTY.

Population in 1910, 3,536; county seat, Hillsboro. Acreage open to entry under the U. S. Land Office at Las Cruces, surveyed, 1,377,944; unsurveyed, 216,300.

Principal towns: Hillsboro, population, 400; altitude, 5,224; Elephant Butte, population, 800; Engle, population, 300; Las Palomas, population, 300.

Sierra County is situated in the southwestern part of the state and its predominating industries are mining and stock raising. Much of the land is of a mineral bearing character, and not subject to agriculture. The really available lands for this purpose are located in the valleys and along the river bottoms, and have long since been taken up. There are quarter sections still remaining but they should be carefully investigated before settling upon. There are lands in these tracts that would raise fine crops of grain, fruit and vegetables if water were brought onto the land. In the eastern part of the county much of the land will eventually be brought under irrigation from the Elephant Butte Dam located in that vicinity.

Hillsboro, the county seat, is reached by a stage line running from Lake Valley, the terminus of a branch line of the Santa Fe railway, about twelve miles distant, and is a thriving mining center.

In favored sections of this county English walnuts are grown, and with care and cultivation this crop could

be made very productive and profitable. The Datil National Forest, and the Gila National Forest take in a large section of the western part of Sierra County. Several streams of water are tributary to the Rio Grande, which flows through the central part. The only railroad in the county is the branch line referred to, and therefore its shipping and transportation facilities are deficient; nevertheless, there is a flour and feed mill located at Arrey, on the banks of the Rio Grande, and another one at Montecillo, on the Alamosa River, each using local grains for its output and depending on home consumption to take its product.

At the New Mexico State Fair, held at Albuquerque, in October 1915 Sierra County exhibited apples weighing 29 ounces; corn grown in 90 days on irrigated lands, with three ears to the stalk; as well as fine Irish potatoes and a high grade of English walnuts.

Its principal mineral productions are gold, silver, copper, lead and zinc.

The normal annual precipitation in Sierra County is 12.3 inches; normal seasonal precipitation, from April to September, 7.1 inches; normal seasonal snowfall, 9.2 inches; mean annual temperature, 58°; mean winter temperature, 45°, and mean summer temperature, 75°, according to statistics prepared by the U. S. Weather Bureau at Santa Fe, from figures furnished by the station at Hillsboro.

SOCORRO COUNTY.

Population in 1910, 14,761; county seat, Socorro; acreage open to entry under the U. S. Land Office at Santa Fe, surveyed, 742,913; unsurveyed, 58,834; under U. S. Land Office at Las Cruces, surveyed, 1,377,944; unsurveyed, 216,300.

Principal towns: Socorro, the county seat, population, 1,560; altitude, 4,582; Magdalena, population, 1,226; Kelly, population 1,015; San Marcial, population, 695; Carthage, population, 448; Mogollon, popula-

tion, 779; San Antonio, population, 434. The altitude of these towns is about that of Socorro, excepting Kelly, which is 7,500 feet, and Magdalena, 6,552.

Socorro County is situated on the western border of the state and extends to the central part, being the largest county in the state. Many years ago it was locally celebrated as a grape-growing region, its extensive vineyards producing a most delicious quality of fruit, and this industry could readily be revived. It is one of the banner stock raising sections of the state, thousands of cattle and sheep grazing on its wide ranges.

The Rio Grande flows across the eastern part of the county, and is fed by several smaller streams which have their sources in the surrounding mountains. The Datil National Forest takes in a large portion of the county. Like most of the other counties in New Mexico, the valley lands along the water courses, especially those of the Rio Grande, were taken up years ago, but there is abundant room for settlers on lands that are awaiting development, more particularly in the western part of the county, and in many sections of this land the water necessary for irrigation and domestic purposes would not be difficult to reach.

Socorro County is a heavy mineral producer, its principal output being gold silver, copper, lead and zinc. Its best known mining districts are Magdalena, Kelly, Mogollon, Water Cañon and Socorro, though new discoveries are being made from time to time.

Socorro, the county seat, is on the main line of the Atchison, Topeka & Santa Fe Railway, running south from Albuquerque, with a branch line to Magdalena. This is also an extensive shipping point for wool, sheep and cattle. There is also a flour mill at Socorro, which indicates the productiveness of the county in grains.

The New Mexico School of Mines is located at Socorro.

The normal annual precipitation of Socorro County is 10.8 inches; normal seasonal precipitation, from April to September, 6.7 inches; normal seasonal snowfall, 9.0 inches; mean annual temperature, 58°; mean winter temperature, 39°, and mean summer temperature, 76°, according to statistics prepared by the U. S. Weather Bureau at Santa Fe, from figures furnished by the station at Socorro.

TAOS COUNTY.

Population in 1910, 12,008; county seat, Taos; acreage open to entry under the U. S. Land Office at Santa Fe, surveyed, 253,754; unsurveyed, 224,834.

Principal towns: Taos, population, 521; altitude, 6,950; Costilla, population, 200; Cuesta, incorrectly spelled Questa, population, 557.

Taos County is situated on the northern border of the state of New Mexico, and is one of the best watered sections of the state. The Rio Grande cuts through its center from north to south, and innumerable tributaries to this stream flow from the mountains across the valleys, affording abundant water for irrigation and domestic uses for the numerous settlements along their banks. Taos county is one of several others in the state where large land grants have held back its settlement by homeseekers, as some of these lands have been undivided, and others have been entangled with legal complications, while those along the water courses are owned by people whose ancestors settled there generations ago, but there are still inviting fields for settlers. The lands open to sale or lease are worthy of investigation. With irrigation systems inaugurated, such as are now under contemplation, there would be alluring opportunities for purchase either from settlers owning lands or from corporations controlling them. This county is a big grain producer, and when

Fremont cut his path westward he sent to Taos for his grain supplies, it being then known as the "Granary of the West." It still supplies all the grain used in a large flour mill at Taos, but lack of adequate shipping facilities to export the crops that are raised in this county hinder its advancement agriculturally and horticulturally. In the Red River and Cabresto Creek valleys, in the northern part of the county, all kinds of grain, fruit and vegetables, as well as livestock, are raised and taken to a railroad station in southern Colorado for shipment, thus giving credit to that state for products grown in New Mexico. However, a new wagon road has recently been constructed from the Red River valley south to the Arroyo Hondo valley, which will give an outlet for these shipments at a railroad station in New Mexico, on the Denver & Rio Grande line.

Taos County is rich in gold and silver, and contains many active mining camps with a large mineral territory still undeveloped. It is also one of the important stock counties of the state, sheep, cattle, hogs and goats being its principal shipments of livestock.

The Carson National Forest takes in a considerable part of the county, and it is a fine hunting and fishing country, with a most delightful climate, healthful and invigorating at all seasons of the year.

Taos, the county seat, the full name of which is Don Fernando de Taos, is reached by automobile, either from Taos Junction, on the line of the Denver & Rio Grande railroad, about 25 miles distant, or from Ute Park, the present terminus of the St. Louis, Rocky Mountain & Pacific railroad running into the park from Raton.

The country surrounding the town of Taos is of rare beauty, its mountain scenery being unexcelled in the state. About four miles south of the

town is the settlement known as Los Ranchos de Taos, at which place is located a very old mission church, built by the early Catholic missionaries to this country. And about three miles north of the town of Taos is the ancient Indian pueblo of Taos, the best preserved of the communal buildings in the state, and well worth a trip to that place just to view these ancient structures. The people of this pueblo are an especially strong, virile tribe, giving their attention to the successful growing of livestock, and farming their extensive and fertile lands.

There are many historic relics in and about the town of Taos, as well as in this ancient Indian pueblo, where still may be seen the ruins of the old Spanish church that was destroyed by American soldiers in 1847. The former home of Kit Carson, in the town of Taos, is now owned by the Masonic Order of New Mexico, with a view to preserving it as a landmark of the state. The grave of that intrepid soldier is in the cemetery at Taos.

The normal annual precipitation in Taos County is 12.7 inches; normal seasonal precipitation, from April to September, 8.0 inches; normal seasonal snowfall, 30.6 inches. Mean annual temperature, 48°; mean winter temperature, 28°, and mean summer temperature, 67°, according to statistics prepared by the U. S. Weather Bureau at Santa Fe, from figures furnished by the station at Taos.

TORRANCE COUNTY.

Population in 1910, 10,119; county seat, Estancia; acreage open to entry under the U. S. Land Office at Roswell, surveyed, 147,442; unsurveyed, none. Under the U. S. Land Office at Santa Fe, surveyed, 450,658; unsurveyed, 147,840.

Principal towns: Estancia, population, 517; altitude, 6,177; Willard, population, 450; Mountainair, population, 350; Moriarty, population, 250.

Torrance County is situated in the central part of the state of New Mexico, and has long been recognized as one of the principal grazing sections of the state. In certain portions of the county alkali has hindered its progress, and lack of water has been another drawback, though the fact that it is such a fine grazing country indicates that the soil is fertile and with water for irrigation it might be developed into a more productive locality.

Owing to the large amount of acreage open to entry in this county the state engineer has been authorized to sink three wells with a view of ascertaining the depth necessary to go in order to reach a flow of water sufficient for irrigation and domestic purposes, but as yet only preliminary work on this project has been accomplished.

Forage crops have been raised with some degree of success without irrigation, but as a rule dry farming is not successful in this county. Salt is the prevailing mineral found in this section of the state. Coal also has been found in limited quantities, but has not been mined extensively.

The Manzano National Forest takes in the western end of the county, and the Lincoln National Forest a portion of the southern end. The New Mexico Central railroad runs through Torrance County from north to south, touching Estancia. Willard is a junction point of this road and the Belen Cut-off of the Atchison, Topeka & Santa Fe, and Torance is a junction point for the New Mexico Central and the El Paso & Southwestern roads.

A grist mill is in operation at McIntosh in this county, using local grain for its output.

The normal annual precipitation in Torrance county is 13.5 inches; normal seasonal precipitation, from April to September, 9.1 inches; normal seasonal snowfall, 30.1 inches; mean annual temperature, 50°; mean winter temperature, 31°, and mean

summer temperature, 68°, according to statistics prepared by the U. S. Weather Bureau at Santa Fe, from figures furnished by the station at Estancia.

UNION COUNTY.

Population in 1910, 11,404; county seat, Clayton; acreage open to entry under the U. S. Land Office at Clayton, surveyed, 394,000; unsurveyed, none. Under the U. S. Land Office at Tucumcari, surveyed, 68,105; unsurveyed, 18,000.

Principal towns: Clayton, population, 970; altitude, 5,178; Des Moines, population, 474; Folsom, population, 484.

Union County is situated in the extreme northeastern corner of the state of New Mexico, adjoining Colorado on the north, and Oklahoma and Texas on the east. Within the years from 1912 to 1915 it has made its principal advancement along farming lines. A large part of the lands that for many years were used solely as stock ranges are now being cultivated for the growing of crops, but it is still one of the more important stock counties in the state, and it will continue to be a stock country for many years to come, as there is plenty of room for both farmers and stockmen. The county is watered by a great number of small streams, principally tributaries of the Canadian River, which runs just south of the Union county line.

There are thousands of acres open to homeseekers who are not timid, and are willing to put up energy and intelligent effort as part of their capital. Dry farming methods have proved very successful in this county, and in the past few years excellent crops of corn, wheat, milo maize, broom corn, kaffir corn, and first-class vegetables have been grown without irrigation. These results have demonstrated that the Campbell dry farming system can be made eminently successful. Union county has had a large immigration, and most of

those that have come have remained. Prosperous farming communities have grown up around the towns above mentioned, and lands of the county are still being entered upon.

Clayton, the county seat, is on the line of the Colorado & Southern railroad, and is a home town that offers a pleasant place for a residence. It is a very important shipping point, and during the fall of 1915, before the shipments of stock and grains had really begun, there were sent out from this point 86 carloads of grain; 110 cars of dried beans; 102 cars of broom corn, and 96 carloads of cattle and sheep, and more of these same products were awaiting shipment at the time this report was secured.

Folsom is another shipping point, and during the same period mentioned above there were shipped from that station 112 cars of cattle and 69 carloads of sheep.

From Des Moines there were shipped 54 cars of grain; 11 cars of dried beans, and 54 carloads of cattle and sheep.

The reason given for such a small shipment of stock is that the farming element has encroached upon the stockmen to such an extent, during the past few years, that stock raising no longer holds the prominent place in this section of the state that it formerly held.

All of these shipments were to points outside of the state, and will convey some idea of the character and amount of products of Union County. A grist mill at Clayton is among the industries operating in this county.

The normal annual precipitation in Union County is 15.8 inches; normal seasonal precipitation, from April to September, 12.2 inches; normal seasonal snowfall, 11.9 inches. Mean annual temperature 57°; mean winter temperature 38°, and mean summer temperature 76°, according to statistics prepared

by the U. S. Weather Bureau at Santa Fe, from figures furnished by the station at Albert.

VALENCIA COUNTY.

Population in 1910, 13,320; county seat, Los Lunas; acreage open to entry under the U. S. Land Office at Santa Fe, surveyed, 778,972; unsurveyed, 102,491.

Principal towns: Los Lunas, population, 719; altitude, 4,843; Belen, population, 680; San Rafael, population, 800.

Valencia County is situated on the western border of the state, and extends almost to the center thereof, it being one of the larger counties of New Mexico. The Rio Grande crosses the easterly end of the county from north to south, and the San Jose river also waters this section of the county, flowing into the Rio Puerco, a tributary of the Rio Grande, and there are a number of smaller streams that flow through other parts of the county, which help to water the lands.

The lands in Valencia County lying along the streams and valleys have long since passed into private ownership, but on the plains east and west of the Rio Grande there yet remain many locations for homes. Several promising agricultural districts in this county may be made available, about which information should be obtained from the U. S. Land Office.

On the lands of Valencia County grains of all kinds, alfalfa, fruits and vegetables have been grown abundantly, and grapes have been produced that would equal the best raised anywhere.

There are three flour mills in this county, one at Belen, another at Los Lunas, and one at Jarales.

Valencia is one of the great stock-growing sections of the state, and lumber also holds a prominent place among its industries, especially in

the western part of the county. There are some salt deposits also, but as yet it has not become much of a mineral center excepting for the production of copper, and this is found chiefly in the Manzano and Zuñi mountains, though in some places large deposits of coal are indicated.

Los Lunas, the county seat, is on the main line of the Atchison, Topeka & Santa Fe, running south from Albuquerque to El Paso, Texas, and Belen is the point where the main line of the same road makes its cut-off to avoid the heavy grades on the north, consequently this is quite a lively railroad town. The main line of the Atchison, Topeka & Santa Fe from east to west, runs through the northeasterly portion of Valencia county, and the great mass of lava beds, seen from the windows of the trains on this line, are located in this county. There are also several Indian pueblos, including the celebrated Acoma Pueblo, which is built on a high, rocky mesa, commanding an extensive view of the surrounding country, and the ruins of other pueblos are still to be seen.

A part of the Zuñi National Forest takes in a small portion of this county along its northern border.

But perhaps the most interesting national monument in the entire state is the Inscription Rock, which is also located in Valencia County. It was on this rock that several of the early Spanish explorers inscribed a brief record of their various expeditions in passing that way. These records date back to a very early period, that of Don Juan de Oñate, the founder of Santa Fe, being dated in April of 1605, and it seems to be historically certain that the city of Santa Fe was not founded until after his return from the expedition mentioned in this inscription. This rock is of such great value to the historian that it should be absolutely protected from vandals who would despoil it.

The normal annual precipitation in Valencia County is 9.0 inches; normal seasonal precipitation, from April to September, 5.7 inches; normal seasonal snowfall, 7.7 inches; mean annual temperature, 55°; mean winter temperature, 34°, and mean summer temperature, 74°, according to statistics prepared by the U. S. Weather Bureau at Santa Fe, from figures furnished by the station at Los Lunas.

CONCLUSION.

In conclusion, we call special attention to the fact that, practically every city and town in the state has either a Board of Trade or a Chamber of Commerce, which will be glad to furnish information concerning its particular locality.

In addition to these may be mentioned the following officials to whom application may be made for information on subjects connected with their departments.

State Corporation Commissioners: For anything pertaining to railroads and Public Utilities, and other corporations.

State Superintendent of Public Schools: Schools and educational institutions.

State Engineer: Water rights, Irrigation and Highways.

United States Weather Bureau: Reports on climate, rainfall, etc.

United States Forestry Department: Grazing and timber lands in National Forests.

All of the above officials may be addressed at Santa Fe, New Mexico. For further information on any of the subjects treated of in this booklet, address,

ROBERT P. ERVIEN,
Commissioner of Public Lands,
Santa Fe, New Mexico.

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